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DEERING J. ROBERTS, M.D.,

LATE PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF TENNESSEE.

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DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

HEREDITARY SYPHILIS AND TUBERCULOSIS OF THE HIP-JOINT.*

BY W. D. HAGGARD, M.D., NASHVILLE, TENN.
Prof. of Gynecology and Diseases of Children in the Medical Department of the University of Tennessee.

(*Reported by J. Ellet Conyers,*)

The patient before you has been under my professional care from birth, and has a clinical history of more than ordinary interest. That you may better appreciate the entire situation, I will state that I treated the father for syphilis before the birth of the first baby. At that time he was very unreliable, and his treatment was neither regular nor persistent; consequently the

*A clinical lecture, delivered at the City Hospital, December 16, '98.

poison was not eliminated from his system until after he had begotten syphilitic children. His present wife, by whom he has had nine children, was first delivered of a still-born child at full term.

The external surface of the body was completely macerated, as a result of the syphilitic poison: the child was small and showed it had been illy nourished. The liquor amnii was dark in color, very thick and offensive. The second child, born in less than a year was a typical case of hereditary syphilis, with an eruption resembling roseola over most of the body. Pemphigus over the palms of the hands and soles of the feet was well marked. The child a few days later, began to have a profuse discharge from the Schneiderian membrane, and developed "snuffles" so severe as to interfere with sucking to such an extent as to almost entirely preclude nursing, and was fed with a spoon. The child died in less than three weeks of inanition.

The third child—the patient before you—seemed when born to be free of any syphilitic lesions, but was small, shrunken and illy nourished. Three weeks after birth inflammation of Schneider's membrane appeared, developing the characteristic "snuffle." The usual skin lesion soon appeared. About the third month lymph-nodes in the axilla, groin, and sub-maxillary region appeared, but disappeared before the end of the treatment; also onychia, or the characteristic syphilitic disease around the edges of the finger and toe nails, involving all the fingers and toes. After a long and tedious treatment they all got well but one thumb and one finger, which threatened the destruction of the first joint, but both got well after three years of persistent constitutional and local treatment.

I have been thus particular to give an accurate history of these cases of hereditary syphilis, first, to impress your minds with the progressive improvement, from paternal treatment. The first child was still-born in complete maceration, with foul, offensive liquor amnii; the second child had marked and characteristic syphilitic lesions at birth and soon died; the third had no lesions at birth but developed them later; the last case proved very refractory to treatment but finally got entire relief. The mother has had six children since without a symptom of syphilis in any of them, and has never had syphilis herself.

We will now call your attention to another phase of the case. About one year ago the boy received a fall, or as was supposed, had a fit—to use their expression. In this fall he sustained a considerable injury of the hip joint. I was called at the time, and found simply a bruise, but no abrasion of the skin, which gradually disappeared and was forgotten; but it was observed by the parents that the boy's locomotion was not quite as good as before, and ever since he has shown slight lameness. It is for this ailment that the boy is brought to me to-day. We will now have the boy stripped and give him a painstaking and careful examination, with a view of determining, if possible, the etiology and pathology of this affected joint. We find by comparing the two limbs there is no shortening, no displacement, no external swelling, nor evidence of disease on the outer surface. We find, however, pain on pressure, or by inflicting a slight blow on the heel with the boy on his back with limb slightly extended. There is likewise pain elicited by slight traction with rotation of the limb. We will now ask the boy to walk two or three times across the amphitheatre. You will now observe a slight halt in his gait, accompanied with slight lameness. In response to the question, "Does it hurt you to walk?" he makes answer, "It does, some times worse than at others."

The injury received in this case created an area of inflammation in the hip joint, the infection of which presupposes the presence of the tubercle bacilli as the organisms were probably floating in the blood, and which in all probability in the case in hand came from the lymph nodes before spoken of. All localized lymph nodes or infected areas speedily undergo caseation, induration and liquefaction, the tissues being converted into embryonic cells, and unlike the granuloma of pus infection, no blood vessels are developed, and consequently the destructive process is not so great as in the infective process of pus forming germs. In the case before us the joint was evidently infected by the germ of tuberculosis. If it had been infected by a pus-forming germ instead, with the area of inflammation induced by the traumatism the joint would have been destroyed. If we were permitted to examine microscopically the contents of this joint we would find the joint contains no pathogenic germs whatever, but the tubercle bacilli. Known pathologic changes have

[illegible]

of iodoform in glycerine into the joint, with the hope that we will, through its well-known bacillary power over the germ, destroy it, thus saving the joint, and it may be the life of the boy.

Now let us see where we stand, and what are our hopes and expectations with reference to the case in hand. We have at present a localized bone disease. Now for the sake of illustration and to make as emphatic as possible the grandeur and glory of Koch's discovery of the tubercle bacilli, I shall refer to it as the most important era, the most far-reaching in its benefits to humanity, the greatest boon that the science of bacteriology has yet conferred upon man. To keep up the trend of my contention I shall draw a parallel between the treatment of this case twenty-five years ago and to-day, since this comparison will bring in strong contrast the difference in results. And when we recall the fact that tuberculosis carries to the grave more human beings than any other one disease with which humanity is afflicited, the justice of my contention will find recognition.

The material found in the joint would have accumulated until surgical procedures, necessitating the opening of the joint, the probable removal of the neck of the femur, the curettment of all necrotic tissues of the joint, and then a long, tedious, unsatisfactory, painful and expensive treatment with all the best appliances for extension and counter-extension and local treatment of various kinds, as well as the very best dietetic and hygienic treatment would all have resulted, at best, in the patient being left a hopeless invalid with anchylosed joint and defective locomotion. Let us now take the other side of the picture and truthfully portray what we are to expect from the advances made in the treatment of localized tubercular lesions of the osseous system, but of the other tissues of the body as well; and when we sum them all up in our minds' eye we will have some faint conception of what bacteriology has done for the human race in this one discovery, and the present treatment — which is, of course, nothing but the outcome of the discovery itself. All honor, therefore, to the name of Koch!

PURULENT TUBERCULOSIS AND RHEUMATIC HIP-JOINT DISEASE.

BY A. M. PHELPS, M. D., OF NEW YORK.
Professor of Orthopedic Surgery in the Medical Department of the University of New York and the New York Post-Graduate School.
Professor of Surgery in the Medical Department of the University of Vermont, Etc.

(*Concluded From December Number.*

Before considering the early symptoms of hip-joint disease, I would like to call attention briefly to a few facts which are observed clinically. Joints attacked by inflammation, either intra or extra capsular, have a condition of rigidity or spasm of the muscles about them. This is due to irritation of the terminal nerve plates in the area of disease, transmitted through the reflex centers. The muscles operating upon the joint, which are supplied by a nerve given off from a common nerve trunk (one branch distributed to the area of the disease, the other to the muscle), are affected by spasm, while the other muscles may remain quiescent. That muscles affected by spasm will rapidly atrophy is well known. These facts are observed particularly in inflammation of the knee joint. The knee joint is supplied posteriorly by branches from the great sciatic nerve. The patella is supplied by nerves given off from the anterior crural and obturator. When inflammation attacks the condyles, flexion and rapid atrophy always take place, but in patella disease, or disease located anteriorly, the limb remains in the straight position, owing to the fact that the reflexes are distributed through the anterior crural and obturator and not through the great sciatic. Assuming that these propositions are correct, and clinical observations seem to demonstrate them, we must at once conclude that rigidity of the muscles from spasm, producing a limit of motion, would be the first symptom observed in any joint disease. Limit of motion due to spasm of muscles in any joint

produces deformity. We would designate as the second most common early symptom in joint disease, deformity. This limit of motion and deformity produces a limp. So I think we can safely say that limit of motion, deformity and limp are nearly always, if not always, present in hip-joint disease in the early stages. There are in general joint diseases eight cardinal symptoms, two or more of which are always present. These cardinal symptoms are pain, heat, swelling, pain on joint pressure, limited motion, spasm of the muscles, atrophy and deformity. Each joint has super-added to these eight cardinal symptoms other special symptoms. These special symptoms are due to the anatomical characteristics of the joint. In hip-joint disease pain is not always a common symptom; rise of temperature, owing to the depth of the joint, is hardly perceptible; swelling is not seen until effusion or dislocation takes place; pain on joint pressure is present only in intra capsular disease, located between or near the articular surfaces. Limited motion, spasm of the muscle, limp and deformity, with apparent lengthening or real shortening, are nearly always seen associated together. Atrophy pretty constantly occurs, especially in bone diseases, and it may occur as early as the tenth day. The other symptoms observed in the early stages are night cries, pain in the knee, flattening of the buttock, partial or complete obliteration of the gluteal fold.

When the limb is in a straight position the muscles accurately balance it, but when the limb becomes flexed, the action of these muscles is changed in proportion to the amount of flexion. If these muscles are in a condition of excitability or spasm from reflex irritation, one can easily see how various deformities can take place, depending entirely upon the position of the limb when the muscles act. When this great mass of muscles is affected by spasm, which is always the case in inflammation, one can readily see how limit of motion and deformity, to a greater or less extent, must be the earliest symptoms observed.

Before the American Orthopædic Association, I presented a model, together with several dissections which I had made of the joints, for the purpose of demonstrating why the limb assumes certain positions, with occasional exceptions, when the hip-joint is inflamed. The capsule of the normal joint is twisted around the head and neck in such a manner that when

the limb is in the straight position great tension is exerted upon the joint through the capsule and its other ligaments. Now, when the joint or capsule becomes inflamed, the patient invariably places his limb in a slightly flexed and abducted position to relieve tension and change altogether the action of the muscles; they, being in a condition of spasm, together with the voluntary act, produce the deformity of the first and second stage of the disease. When flexion takes place just a little further, the action of the muscles is entirely changed: abductors become inward rotators; outward rotators become, to a certain extent, abductors, etc., etc. Resistance not being offered to the adductor muscles, the limb, by their contraction, passes over to the deformity of the third stage, or hip-joint disease, that is, adduction, flexion and inward rotation. There are exceptions to these deformities, which I have designated as erratic, but they will not be considered now.

These deformities take place whether the disease is intra-capsular or extra-capsular, whether there is effusion into the joints or not; and let me say here that only a limited number of cases have effusion into the joints in the early stages. To conclude, the importance of symptoms, I believe, speaking generally, occur about in the following order:

1. Limit of motion.
2. Deformity, with apparent lengthening or real shortening.
3. Limps.
4. Atrophy (bone disease).
5. Pain in the knee (with absence of knee-joint disease).
6. Pain on joint pressure.
7. Night cries, in absence of other joint disease.
8. Flattening of the buttock, with change in gluteal fold.
9. Heat.
10. Swelling.

The order of these symptoms might be transposed a little by some authors, but this order will answer for diagnostic purposes.

The treatment of hip joint disease is divided into the operative and mechanical. *In all cases where abscesses are present they should be immediately evacuated. This enables the surgeon to intelligently explore the diseased wind with his finger and ascertain to*

FIG. 1.

FIG. 2.

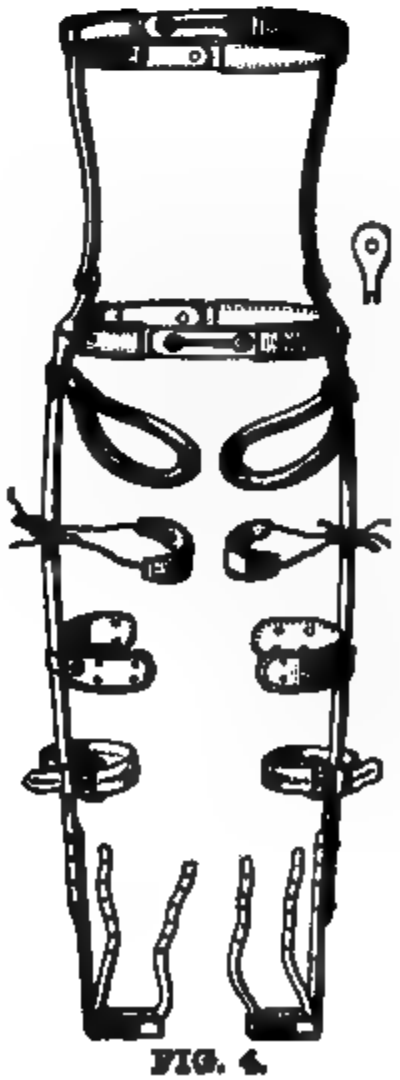

FIG. 3. FIG. 4. FIG., 5

what extent the disease has progressed. If the head of the bone is separated from the neck it should be removed, together with the great trochanter and the neck. The acetabulum, if diseased, should be thoroughly curetted, together with any other diseased tissue that may be found in the joint. If only small points of disease are found within the joint, those should be curetted, together with whatever diseased tissue exists within the joint, and the cavity washed out with bi-chloride solution, 1 to 2,000. The joints should now be filled with a solution of iodoform and glycerine, one-half ounce of iodoform to four of hot glycerine. After this has been done the patient should be put in bed, with extension in the line of deformity and lateral traction above the knee, amounting to about three pounds. Day by day the limb should be lowered, until the deformity is overcome. When the deformity is overcome the lateral traction fixation splint which I devised and used in the Post-Graduate School should be adjusted, and the patient put on crutches with a high shoe on the well leg. Pus and tubercular material destroy living tissues, and when joints are allowed to macerate for weeks and months in these materials, which now seems to be the favorite method of many of our orthopædic surgeons, extensive destruction of bone will almost surely follow from infection. In many cases extensive cutting of muscles, tendons and fascia may be necessary to overcome the deformity. The reader will see, then, that we believe that deformiites should be first overcome, and all abscesses opened before the mechanical work begins. *No case of hip-joint disease need recover with angular deformity*, and to secure and attain this end steps should be taken at the commencement of treatment to place the limbs parallel, after which the lateral traction fixation splint, already alluded to, will prevent the patient from again becoming deformed.

For many years the profession have been taught that the long traction splint used by Sayre, Taylor and others, was the proper machine to use. The patient is allowed to walk upon this splint, using it as a perineal crutch. The splint stops at the trochanter and exerts no power over the joint, on that account, to fix it. The patient, stepping upon this splint with the strap around the perineum, causes trauma of the joint while walking, and nearly every splint that I have seen adjusted allows the pa-

FIG. 6.

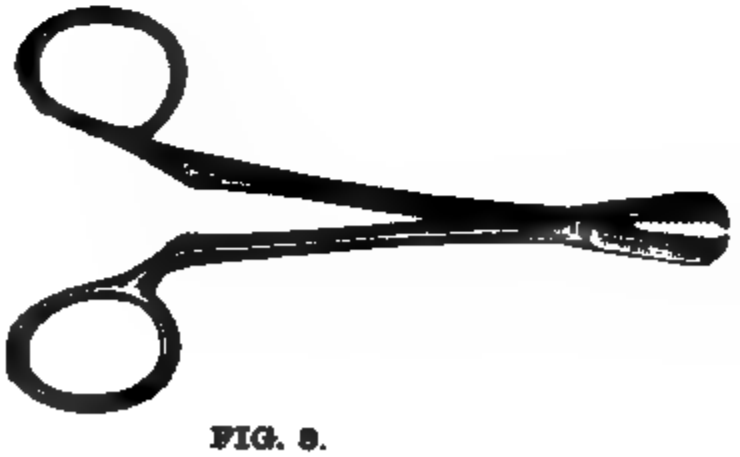

FIG. 8.

FIG. 7.

less to put his toe upon the ground, which, of course, brings the weight of the body on the acetabulum, and each time the patient steps. The pounding of the head of the bone inward and forward into the acetabulum at the rate of 2,000 times in [illegible] each day, [illegible] is fully expressed [illegible] time. Accounts for the [illegible] results which we see [illegible] from institutions where this splint is used. Angular deformity which produces shortening, nearly always results from the use of this splint. The statistics published by [illegible] and [illegible] in the *New York Medical Journal*, from the [illegible] street Orthopaedic Dispensary in 33 cases reported out of a series of many hundreds.

Ankylosis 23
Slight Motion 4
Motion from 170°. ...... [illegible]
Motion to right angle...... 3
Motion free............ 3
33

The three with free motion were treated during the first stage of the disease, two were under three years old. There were only two cases without shortening. The splint used was the long traction, which I have already described—one which admits of free motion at the hip joint and the patient is allowed to walk upon it. This splint was devised during a time when it was believed that fixation would produce ankylosis of the joint, and that motion was necessary to keep up nutrition of the joint. It is needless to say that we have outgrown both of these ideas. The statistics of Chambers-street Hospital of 50 consecutive fractures of the elbow joint show only one case of ankylosis. These patients were fixed in plaster of Paris for many weeks, without passive motion. In the Post-Graduate School we fix our cases of hip joints from one to five hours without motion, with the above traction fixation splint, and in our long series of cases not one has resulted in bony ankylosis, excepting cases with great destruction of bone, and where we have had control of the patients they have recovered, practically, without any angular deformity. Fig. 7 shows range of motion in a case fixed 16 months absolutely in a plaster of Paris bed, perfect motion remaining. This one case demonstrates that 16 months of absolute locking up of a hip joint will not produce ankylosis. Shortening is seen in this long series of cases only from non-development of the limb and extensive bone destruction.

The accompanying cuts and description will convey a very accurate idea of the splint which we use in our treatment after the deformity has been overcome in bed. Tissues inflamed or diseased should be put at rest, to allow the normal process of repair to take place without the trauma of motion. This is the law. It is applied in the treatment of the iris, fractures, sprains and any other tissue that can be immobilized. To carry out the requirements of this law so far as possible, I was led to devise the splints illustrated in this article.

To fix the hip joint a splint must extend from the foot to the axilla (see Figs. 1, 2, 3 and 5).

Fig. 3 represents the perineal crutch, with the abduction bar adjustable by means of the key, for the purpose of making lateral extension. The steel bar is adjusted to the steel ring, which makes a firm crutch, the pressure coming on the tuberosity of the ischium. Adhesive straps, extending to near the body from the ankle, furnish means of extension by tightly buckling them to the straps, the rings furnishing counter-extension. The rod ending in the upper ring prevents flexion and extension of the legs. The splint is intended to prevent every motion at the hip joint, and at the same time apply extension in a line with the neck of the femur. Fig. 3 shows the crutch and splint adjusted, the patient using crutches and standing upon a high shoe upon the well leg.

This splint I found a little too expensive for dispensary work. I then constructed the splint (Figs. 1 and 5), which simply does away with the extension joint and key.

A glance at the cuts will convey the idea. Figs. 1, 2, 3 and 5 are the single and Fig. 4 the double splint for double hip disease. Fig. 5 is the cheap outside bar spiint, and is the one I now use in all cases. The splint is a bar of steel, extending from the foot to the axilla, accurately bent to fit the body. A tracing made on paper by laying the child on it will assist in shaping the bar. A pelvic belt, a thoracic belt, and a steel perineal ring complete the fixation part of the splint. The straps in the foot-piece buckle to adhesive straps attached to the leg, which make longitudinal traction. The strap lashes the leg to the splint, making lateral traction, precisely as the abduction bar acts in Fig. 3.

An ordinary blacksmith can construct this splint.

Fig. 7 is the double hip splint adjusted. Fig. 8, the writer's hemostatic forceps, useful in working in cavities and fibrous tissue. The jaws are serated, and will hold. Being blunt pointed, the ligature will slip over the end and not tie on the forceps.

Before these or any other splint is adjusted, however, the patient should be treated in bed until deformity is overcome and the active stage of the disease somewhat modified.

To conclude, my observations led me to believe that the most serious element of destruction in hip joint disease is the trauma and pressure produced by the spasm of the muscle; that fixation of the joint without extension is an impossibility; that the successful treatment of the joint must depend upon its absolute immobilization, which can only be produced by proper extension and fixation; that the constitutional treatment of hip-joint disease amounts to but little independent of mechanical treatment; that mechanics is everything; *that extension in a line with the axis of the shaft and deformity alone, in hip joint disease, is entirely wrong;* that extension should be *made in a line parallel to the axis of the neck*—in other words, *two lines of extension;* otherwise the idea of extension is not perfectly carried out; that ankylosis of the joint is not produced by immobilizatian, but by the severity and character of the inflammation and subsequent cicatricial contraction about the joints; that the long traction hip splints in general use neither properly extend nor immobilize the joint; that intra-articular pressure results in the destruction of the joint, or ankylosis, in a large per centage of cases is proved by statistics; that the result in hip-joint disease should be as good as those of knee-joint disease, and will be, provided that perfect immobilization can be carried out; that patients should never be allowed to step upon any portative apparatus; that a high shoe on the well leg and crutches should be insisted upon until the patient is cured; finally, *that the angular deformity seen in cured cases should not occur, and such cases are a standing rebuke to the splint and methods employed. In other words, no patient with hip joint disease need ever recover with angular deformity.* In exceptional neglected cases of dislocation a slight amount of deformity had better be left than resort to osteotomy.

Clinical Reports.

EXPERIMENTAL RESEARCHES AND EXPREIENCES CONCERNING INFITRATION ANESTHESIA.*

BY DR. H. BRAUN,
Lecturer at the University of Leipzig.

This very exhaustive investigation begins with a consideration of the general principles of local anesthesia, of which the author distinguishes three separate kinds. The anesthesia may be purely mechanical, as in the infiltration anesthesia of Dr. Schleich; or it may be partly mechanical and partly due to the paralyzing influence of the material employed, as in the indirect infiltration anesthesia proposed by Professor Reclus; or, finally, it may be a true regional anesthesia, due to the specific action of the agent used upon the terminal nerve filaments. The author has experimented with the most varied pharmaceutical and chemical agents in different concentrations; of especial interest, however, are the results that he obtained with the chemical substances specifically known as local anesthetics, in which the paralyzing action upon the nerve filaments greatly exceeds the irritant effect, or, in which the latter is absent altogether. With these substances the author took especial pains to ascertain the minimum amounts that would neutralize the pain of the swelling caused by the injection, and the minimum limit of efficacy of the remedy.

In the course of these experiments a number of the more recently proposed local anesthetics were investigated in conjunction with Dr. Heinze, including guaiacol, guaiaryl, aneson,

*Reported in outline at the XXVII Congress of the German Surgical Society. Abstracted from the *Archiv fur klinische Chirurgie*, Vol. 57, No. 2, September, 1898.

stovaine, and Eucaine "A." The author found none of these more or less irritating, and unsuitable for the infiltration anesthesia at all events; more especially painful was the intensely irritating, and insoluble in water, Eucaine "A" was the only one that effected a perfectly useful regional anesthesia. But the author does not think that it is equal in very close respects, either in local anesthetic effect or in the absence of irritation.

The author did not employ morphine, as recommended by Dr. Schleich, because all solutions of the drug in water or the physiological salt solution, even in the greatest dilutions, have a peculiar local action upon the blood vessels. This is a specific effect of the nature of a paralysis of the vessels in the neighborhood of the site of injection, and is shown by the hyperemic zone that surrounds it: the exudation of fluid from them. Besides this, there is always with morphine a depression of the general sensibility, even when very minute amounts of the drug are employed. Morphine itself is anything but a local anesthetic.

The author then investigated cocaine, the lower limit of effective action of which he found to be as 0.005 per cent. 1:20-(000), and finally proceeded to Beta Eucaine, a substance closely related to it. In agreement with Heinze's conclusions, of the absolute equality of Beta-Eucaine and cocaine in their anesthetic action when used by the infiltration method, Braun states that his cocaine table applies to the newer drug, word for word. The limit of its effective action as 0.005 per cent: like cocaine, the addition of 0.04 per cent. of the drug masks the pain of the injection; and equal percentage solutions of both drugs have the same freezing point. Even 10 per cent. Beta-Eucaine solutions cause no pain any more than cocaine; the intensity and duration of the infiltration anesthesia is the same for solutions of both drugs of equal percentages; only the spread of the anesthesia beyond the limits of the directly infiltrated zone was slightly slower with a 1 per cent. Beta-Eucaine solution. "There can therefore be no doubt," the author says, "that cocaine and Beta-Eucaine aré the only two substances to be considered in the selection of a drug for infiltration anesthesia; they alone paralyze without irritation, and without injury to the tissues; and they alone effect an anesthesia lasting enough for

practical purposes, even in extreme dilution. Of the advantages of Beta-Eucaine over cocaine, and of the toxicities of the two drugs, I shall have something to say later."

In a note the author says that tropacocaine has some advantages over cocaine in regard to the permanence of its solutions and the possibility of sterilizing them; but that it has the disadvantages as compared with Beta-Eucaine of lesser local anesthetic power, greater toxicity, and irritation. The author continues:

"We found that as a substitute for cocaine for the production of a direct infiltration anesthesia Beta-Eucaine only, which is absolutely equal to it in value, deserves consideration. But Beta-Eucaine is not merely a substitute for cocaine; it is absolutely to be preferred to it because it is less poisonous and less specifically irritant, and also because its solutions are permanent and can be boiled as often as necessary."

The author recommends the following solution for infiltration anesthesia:

Beta-Eucaine.....	1.0 grm. (15 grains.)
Salt.....	8.0 grms. (120 grains)
Distilled Water.....	1,000.0 grms. (32½ ounces.)

Its freezing point is 0.535° C. It is osmotically almost indifferent, and in all tissues accessible for direct infiltration it causes an anesthesia without irritant effects, lasting from ten minutes to an hour or more.

"I have experimented with the practical usefulness of the 0.1 per cent. osmotically indifferent Beta-Eucaine solution for months past in a large number of clinical and polyclinical operations. As a rule we only used the one solution. For it was not to be expected that toxic symptoms would be encountered when using a 1 pro mille Beta-Eucaine solution."

Dr. Braun has twice used almost 300 cubic centimetres (10 ounces) of the above solution, once for the extirpation of a large lymph-gland tumor of the neck, and once for a radical operation for hernia at one sitting. More will hardly ever be necessary; yet a dangerous dose was not even approached, for the same amount of a 1 per cent. Beta-Eucaine solution can be injected subcutaneously into a rabbit, absolutely inflating the animal with fluid, without in any way hurting it. And, since large

amounts of the osmotically indifferent fluid can be given by intravenous injection to animals without damage, such an occurrence accidentally in a human being would do no harm. Of Beta-Eucaine 0.3 gram (4½ grains) in 10 per cent. solution causes in rabbits a mild and evanescent intoxication; the same amount of cocaine in concentration kills the animal in a few minutes. As Vinci has demonstrated, Beta-Eucaine is very much less dangerous than cocaine; it seems to be free from all by-effects, and to exert only a paralyzing action. Concentrated Beta-Eucaine solutions, however, should be as carefully employed as similar ones of cocaine or any other substance which acts as a local paralyzer in great dilutions. Five to ten per cent. Beta-Eucaine solutions injected into the tissues cannot fail occasionally to have undesirable and ill effects, since, like the others, they may occasionally reach the central nervous organs but little diluted. Used in the right way, Beta-Eucaine is an ideal and perfectly safe drug for the infiltration anesthesia.

"The necessity of diminishing the percentage of Beta-Eucaine in the solution will hardly ever occur; but of course it may be so diminished to 0.05 per cent., or even to 0.01 per cent., for the infiltration of less sensitive tissues that are only to be anesthetized for a short time. An increase of the percentage over 0.1 per cent., granted that a direct infiltration of the tissues is possible at all, will only be required in those rare cases in which greatly inflamed and hyperæmic tissues are to be anesthetized for a longer time than is possible with the standard solution; as when other procedures than simple-rapidly made incisions are required. In such cases I have always attained my object by an abundant and extensive infiltration of the tissues with the 0.1 per cent. solution."

"I have never seen any interference with the normal course of the resultant wounds when boiled Beta-Eucaine solutions were employed."

"As already mentioned, the spread of the anesthesia beyond the directly infiltrated tissues is a little slower with Beta-Eucaine than with cocaine, and it is also a little slower in penetrating the nervous twigs. As the specific action of both drugs is absolutely equivalent, these differences must depend upon physical causes, such as differences of diffusibility and of endosmotic equivalent;

factors which evidently play a very small part, or none at all, in direct infiltration anesthesia.

For the last six months the author has employed the osmotically indifferent 0.1 per cent. Beta-Eucaine solutions exclusively in minor surgical operations of all kinds. He does not doubt the possibility, however, of doing the largest operations, such as the major amputations, under the infiltration anesthesia, possibly with the help of a short general narcosis; thus saving the lives of patients who could not stand a prolonged anesthesia.]

He then mentions the fact to which Reclus first called attention (*La cocaine en chirurgie*, Paris, 1895), that cocaine anesthesia rapidly disappears under the influence of incandescent heat, which destroys the drug. The same occurs with Eucaine anesthesia. Thus, in hemorrhoidal operations with the thermocautery, the anal dilatation may show complete insensibility of the parts, and yet the anesthetic effect disappears when the cautery is used. Excisions of hemorrhoidal tumors, which certainly take a longer time, and all other uncomplicated operations upon the rectum, can be done admirably under the infiltration anesthesia; in fact, insensibility lasts much longer than is necessary.

For the opening of sharply limited acute and chronic abscesses the Schleich infiltration method with osmotically indifferent, warmed cocaine or Beta-Eucaine solutions is an excellent method. Schleich's original solutions with cocaine are often too painful in these cases; and if they are boiled, as is frequently recommended, they cannot possibly give satisfactory results.

Finally, the ½ per cent. to 1 per cent. cocaine or 1 per cent. Beta-Eucaine solution is far preferable to infiltration anesthesia for the production of regional anesthesia by interrupting the conductivity of the nerve trunks of the fingers and toes, as long practiced in the Volkmann clinic. For this purpose it is the ideal and practically important method. Just how far it can compete with the infiltration anesthesia in other parts of the body, is as yet undecided. Of course both solutions require an addition of cooking salt of at least 0.6 per cent. The author's experiments in this direction are not yet concluded.

It is true that in certain cases of limited operative procedure a direct infiltration anesthesia with small quantities of more

concentrated cocaine or Beta-Eucaine solutions possesses manifest advantages over the tense filling up of the tissues with large quantities of more dilute solutions; yet in ordinary cases there is no reason for using concentrated solutions of an anesthetic when dilute solutions give most excellent results. In any case it is proper not to exceed the maximum dose of 0.1 gram (1½ grains) of Beta-Eucaine; in very dilute solutions (1:1000), doses of 0.3 grams (4½ grains) will do no harm.

Selections.

THE USES AND EFFECTS OF MANGANIFEROUS IRON PEPTONE. The employment of iron preparations both in essential anæmia (chlorosis), and in the symptomatic forms of this affection produced by severe losses of blood, dates from the earliest times. Long before the chemical relation of this effect was known, these remedies were administered on the ground of pure empirical experience.

When Hannon pointed out the high significance of manganese, as well as of iron, with regard to the absorption of oxygen by the blood, and when this discovery was confirmed by Ruehle, efforts were made to produce, by combination of both remedies, preparations which would best fulfill the therapeutic indications in all directions.

Former attempts of this kind failed to give the desired results. The aim was to combine both metals in such a form as would enable them to be absorbed throughout the entire extent of the alimentary canal, and at the same time be devoid of disagreeable taste which would prevent their prolonged administration. After a series of experiments made in this direction I found in the preparation discovered by Dr. A. Gude (Pepto-Mangan—Gude), a remedy which fulfilled the above requisites, and can recommend it most heartily.

Pepto-Mangan—Gude, is a clear, dark, wine-red fluid, having an agreeable, non-metalic, astringent taste. The latter property gives it a great advantage over other similar preparations, for

the remedy is always taken with pleasure, and may therefore be administered for a long time without exciting the disgust of the patient. No irritation of the stomach is produced, nor is the digestion disturbed in the least respect; indeed, as regards the the latter a stimulation of the long-absent appetite could be demonstrated within a short time.

The Pepto-Mangan—Gude, usually mixed with some water, is prescribed in doses of two or three dessertspoonsful, increased to as many tablespoonsfuls per day. An especially agreeable manner of administration is by addition of cold milk, which then assumes a light chocolate color and an agreeable taste. Prescribed in this form we obtain from this preparation everything that could be expected from a remedy for anæmia.

The Pepto-Mangan—Gude may be mixed with white and sweet wines, excepting the red wines which contain tannic acid, and an occasional change in the manner of administration is sometimes of advantage, especially in the case of children.

The diet, during the use of this preparation, should consist of milk, meats—especially ham—fowl, soft-boiled eggs, and other easily digested foods. On the other hand, sour and fatty foods, red wines, and raw fruits are to be avoided.

The remedy is to be administered for a number of weeks, especially in cases of chlorosis, but in the case of young girls up to 12 years of age it is best to commence with a daily dose of two teaspoonsful (ten grammes). In adults the dose of the Pepto-Mangan—Gude may be increased in a few days to one tablespoonful twice or three times daily, or even to ten or twenty grammes. The preparation should be well protected from the light, and preserved in a cool place in a well-stoppered bottle.

I have employed the Pepto-Mangan—Gude with much success both in chlorosis and in cases of anæmia in girls and women due to loss of blood, menorrhagia, metrorrhagia, inflamation of the pelvic organs, peri- and parametritis, or prolonged leuchorrhœa. In almost every instance I observed within a short time increase of appetite, improved nutrition, healthier color in face, and increase in weight. I was suprised to learn how much more readily the Pepto-Mangan—Gude was taken than simular prepartions, withiout ill effects even after protracted use.

To illustrate my remarks I will cite a few cases:

I will first report a case of chlorosis treated with this remedy, which was under constant observation. The patient, a school girl aged 16, began to menstruate one year ago, but after appearing regularly for three periods the flow suddenly ceased, probably in consequence of mental over-exertion, and symptoms of chlorosis soon developed. The various preparations of iron were tried, but were either not well borne or excited so much disgust that they were discontinued by the capricious patient. A milk cure was prescribed, but followed for only a short time. When, however, I resorted to the Pepto-Mangan—Gude I was surprised to find that the girl took it willingly and that it was well borne. She made a rapid recovery, and after the use of two bottles had regained her former healthy color, while her strength and menstruation returned.

Case II.—A married lady, aged 24, had acquired—apparently of abortion at a very early period—an intense peri-, and parametritis with an exudation of the size of a child's head. The latter disappeared almost completely under suitable treatment and rest, so that only a slight induration was present in the parametrium after three weeks. Owing to the considerable anæmia and loss of appetite, however, the patient recovered very slowly, and for this reason I ordered the Pepto-Mangan—Gude. A few days after its use the appetite reappeared, recovery ensued rapidly, and five weeks later her health was completely restored.

Case III.—A married lady, aged 30, had suffered from leucorrhœa, due to catarrhal inflammation of the vagina, for two years, and although the local trouble had been much relieved she continued pale and weak. As her chlorotic daughter at the time was taking the Pepto-Mangan—Gude with marked benefit, I advised her also to try this preparation. She followed my advice, and after fourteen days the weak, sluggish and pale woman seemed as if transformed. She has since regained her former health.

These few cases, which were under continued observation, will confirm what has been said above regarding the manner of application and effect of the Pepto-Mangan—Gude. I regard it as superfluous to cite other cases, since a few closely observed cases teach more than a host of superficial observations.

On the ground of my experience I consider myself warranted in directing the attention of physicians to this remedy, and feel convinced that further trials will give equally favorable results. Even in cases where local treatment is necessary, the Pepto Mangan—Gude will prove a valuable auxiliary in our treatment.—*Dr. Julius Heitzman, of Vienna, in Allgemeine Weiner medizinische Zeitung*, xxxvi.

A COMMUNICATION FROM THE PUBLISHER.—*The Libel Suit of William Smith, Osteopathist.*—"To the readers of the *Medical Age*: Dr. William Smith, osteopathist, has a grievance against the *Medical Age*, and demands $25,000 damages.

"The ground of his plaint is an editorial, reflecting discredit on Dr. Smith, on the *Journal of Osteopathy*, and on osteopaths in general. The subject is set forth editorially in the *Medical Age* of September 26, 1898, and a reprint of this editorial will be sent on application.

"I need hardly assure anyone familiar with the past record of the *Age* that William Smith, M.D., D.O., has a large contract on his hands. His quest for damages is likely to prove futile, and his armor will need patching if it is to withstand the hard legal knocks that will be showered and battered upon it before he touches one dollar of the *Age's* money.

"Emboldened by its success, osteopathy now enters the courts and offers battle to a medidal journal which disputes its respectability. The challenge is accepted. In the interest of science, in defense of ethical and honorable medicine, in defiance of a quackery that constitutes a deep disgrace to an enlightened age and a stain on the communities which give it shelter, the *Age* purposes to maintain its position and to continue its denunciations of the ignorant pretenders who fatten on the sufferings of the credulous and confiding.

"Having put my hand to the plow in this uncompromising fight with quackery, I beg leave to assure you that there will be no turning back.

"I need not point out the bearings this contest must have on the interests of legitimate medicine, and I earnestly hope that the *Age* may count on the moral support and commendation of the entire profession."—*Extract from an editorial by William N. Warren in the Medical Age, Oct.* 25, 1898.

THE ARMY MEDICAL DEPARTMENT OF THE FUTURE.—Under the above caption in our issue of December 3 last, we suggested the likelihood of a large increase in the personnel of the Medical Department of the army in the immediate future. We considered that for the regular army required by the United States, the present strength of the Medical Department, 192 officers, would have to be increased to at least 450 by the appointment of 258 medical men to fill original vacancies. This we regarded as the very minimum of needful expansion. Since then, three bills providing for the reorganization of the army have been introduced into the Congress of the United States. One provides for an increase of 404 medical officers, and each of the others for an increase of 309, making the total of the one 598 and of the others 501. It is evident that some action will be taken by Congress to increase and reorganize the regular army, so that the volunteer troops may be relieved from service and returned to their homes; and it seems probable that this action will involve a large addition to the present medical force. This is the point which we dasire to bring to the notice of the younger members of the Association, that those of them who have military aspirations may not be taken unawares by the announcement of the convention of an examining board to fill vacancies in the corps. Army medical appointments have been made by competitive examinations since the days of the Revolution. In 1775 the Provincial Congress of Massachusetts Bay required each candidate for a position in the Medical Department to be subjected to a close examination by qualified medical men, and there was nothing *pro forma* in the work of that early board, for it is on record that eight out of the fourteen candidates were rejected for failure to come up to the standard. The system then instituted has never ceased to be the rule. In the coming expansion of the corps, it is not likely that appointments will be made without this examination. In fact, all the bills now before Congress provide for the examinations now required by law.

No action will probably be taken by the Surgeon-General of the army looking to the selection of the best men for the new positions until these positions have an actual existence by legislation; but medical men desirous of filling them may do much in the way of special preparation to meet examining boards if

they recognize the likelihood of the speedy appointment of such boards. We know from the "Circular of Information for Candidates seeking Appointment in the Medical Corps of the United States Army," that applications for permission to appear for examination are in order at all times. This circular, issued from time to time by the Surgeon-General of the army, gives the constitution of the Medical Deprrtment at the date of its issue, and states the pay and emoluments and the duties and privileges of army medical officers, the method of making application and the manner and scope of the examination to which candidates are subjected, illustrating the general character of the latter by a series of questions on the various subjects taken from the records of a recently convened board.

At this present writing the chairman of the Military Committee of the House of Representatives is reported as having stated his belief that a bill reorganizing the army will be passed at a very early date. Our young friends should be prepared for prompt action by the Surgeon-General of the army on the passage of this bill.—*Editorial in Jour. of A. M. A.*

When Should We Operate for Appendicitis?—In a paper read before the Southern Surgical and Gynecological Association at Memphis, Dr. A. M. Cartledge, of Louisville, drew the following conclusions: 1. Probably 98 per cent. of the patients who die of acute appendicitis without operation have the fulminating variety of disease. Operation, to be of service, must be done in the first twenty-four hours, better in the first twelve. 2. In view of the fact that we have no means of knowing the probable course of a given attack of appendicitis, operation, when possible, should be performed within the first twenty-four hours after the onset of symptoms. 3. Patients seen after the third day should not be operated on until over the attack, or until purulent formations, if such take place, have been walled off and patient practically rid of general sepsis. An exception to this rule is the rupture of an appendiceal abscess into the peritoneal cavity, a very rare accident—when abdominal section should be immediately performed. 4. Probably as many patients recover from general septic peritonitis by stimulants and

purgatives as by operations. In either event, if it is a case of true general septic peritonitis, the mortality will not be far from 95 per cent. Contributions to medical literature would indicate that there is a sad need, on the part of the profession, of more definite views as to the nature of this disease. If operated on at all, no attempt at general cleansing of the cavity should be practiced; quickly assist nature to take care of the desperate patients, by removing the source of the foci. To do more is to add the shock of an unbearable operation to an already nearly exhausted vitality. 5. Subject to interval operation, patients who have suffered unmistakable attacks of the disease. 6. Do not operate too soon after a severe attack with many adhesions; the operation will be greatly simplified by waiting a few weeks longer. In the meantime, keep the patient upon light diet and little exercise. Patients do not usually have a recurrence until the adhesions or splints have been removed by absorption. The mortality from interval operations should not be more than 1 per cent. In drawing the above conclusions, Dr. Cartledge wishes it to be thoroughly and distinctly understood that they are not to be considered in the sense of hard and fast rules, but simply as a working basis for the feneral practitioner.

THE POWER OF RESISTING SHOCK AND INFECTION varies widely, as is well known, among different races and among different people of the same race. The Irish are thought by some to be abnormally susceptible to shock, infection or injury, whilst Oriental races are almost absolutely impassive under like conditions. An instance of unusual vitality is reported by Bidie, of the Indian Medical Service in the *Indian Lancet* of November 1st: A native boy, aged 15, was gored by a bull in the abdomen, making a wound through which the intestines protruded, and tearing the gut in several places. The coils of the intestines were smeared by the natives *with cow-dung*, covered with a piece of cocoanut and some leaves, and the boy was carried five miles in a country cart over rough roads, reaching the hospital about six hours after the time of injury. The parts were cleansed, the intestines sutured, the abdomen was closed, and the wound dressed antiseptically. Shock was entirely ab-

sent, and the patient made an uneventful recovery, with rise of temperature only on three occasions after the operation.

Unfortunately for both patient and surgeon, constitutions of such staying power are unusual, but this makes all the more imperative the cultivation of such surgical judgment as will enable one to predict with a fair amount of accuracy a patient's capacity to withstand surgical shock before undertaking operations of expediency. There is some justification for the much-abused saying, that such a doctor "knows the constitution of the family;" long acquaintance does help us to understand the personal equation. It is probable that more earnest, conscientious effort on the part of the surgeon, exercised every day in every case, to try to estimate the physical peculiarities of patients, would succeed in training the faculties so that the limits of intervention might, in certain cases, be extended, and in other cases sad accidents might be avoided.—*Phila. Med. Jour.*

Some More Don'ts.—The Don'ts extant at this time are numerous, but there is room for a few more of a different kind:

Don't fail to renew your subscription when the time has expired.

Don't fail to notify the publisher when you have changed your residence.

Don't fail to notify the office when you discontinue.

Don't leave this duty to the postmaster.

Don't forget or neglect to do the gentlemanly thing.

Don't throw the statement of your account in the waste basket and leave the publisher under the impression that the statement was not received.

Don't fail to make note of it when a bill is presented for payment.

Don't conclude that no personal honor is involved in unpaid dues on subscription.

Don't discriminate between the debt due for your selected journal from one due you from your patient.

Don't forget that the golden rule is binding here as elsewhere.

And Don't forget that money is required to conduct a medical journal. —*Medical Herald.*

A Case of "Post Hoc Propter Hoc."—

A little dog barked at the big round moon
That smiled in the evening sky,
And the neighbors smote him with rocks and shoon,
But still he continued his rageful tune,
And he barked till his throat was dry.

The little dog bounced like a rubber ball,
For his anger quite drove him wild,
And he said, "I'm a terror, although I am small,
And I dare you, you impudent fellow, to fall."
But the moon only smiled and smiled.

Then the little dog barked at a terrible rate,
But he challenged the moon in vain,
For as calmly and slow as the workings of fate
The moon moved along in a manner sedate,
And smiled at the dog in disdain.

But soon 'neath a hill that obstructed the west,
The moon sank out of his sight,
And it smiled as it slowly dropped under the crest,
But the little dog said as he lay down to rest,
"Well! I scared it away all right!"—*Buffalo Evening News.*

Wounds of the Heart.—Professor Rydygier opens up the heart by a horizontal incision starting a little to the right of the sternum, and extending through it and still farther to the left, just above the third rib. The incision is then carried downward, obliquely outward to the left, including the left third, fourth and fifth ribs. The periosteum is then cautiously detached from the sternum and the bone sawed. The triangular flap thus made is carefully raised, keeping close to the bones and detaching the muscles. The heart is thus amply exposed, while there is no danger of injuring the pleura or pericardium, and the liability of foam production is reduced to the minimum. Riedel states that in one case the air getting into the pericardium with the blood from the wound churned the blood into foam by the heart action, until it poured down over the whole chest wall. Rydygier's flap has only been tested on the cadaver.—*Vienna klin Woch.*, Nov. 24.

OPERATION FOR EMPYEMA.—The existence of an empyema in the adult is a sufficient indication for the performance of a radical operation. Puncture and removal of the pus by aspiration may succeed occasionally in mild cases of suppurative pleuritis in the case of children; seldom, if ever, in the adult. Operative treatment should be instituted as soon as the diagnosis can be made. Unless the signs and symptoms are conclusive, the diagnosis should be verified and the pus accurately located by an exploratory puncture, as was done in most of the cases operated upon in Camp Thomas. Nothing is gained and much is lost by postponing surgical treatment until the accumulated pus has increased to the extent of producing serious and often irremediable compression of the lung on the affected side. The plastic exudate, which is often copious, as in all the cases forming the basis for this address, is another source of danger in case the operation is not promptly performed, as it creates conditions unfavorable to the subsequent expansion of the compressed lung and extenuates indefinitely the infection.—*N. Senn, M.D., in Journal of A. M. A.*

THE TREATMENT OF DIABETES BY INTESTINAL ANTISEPTICS.—Mr. F. A. Monckton (*British Medical Journal*, Nov. 19th), says that more than twenty years ago, while surgeon to the Wallace, or Riverton, Hospital, New Zealand, some cases caused him to reflect that if diabetes mellitus is curable it should not be by further impoverishing the system by withholding necessary carbo-hydrates, or by destroying the assimilating processes with opium or codeine, but rather by seeking means to check the fermentative changes into glucose or grape sugar. In furtherance of this idea he experimented with sulphocarbolate of sodium, and was so far successful that several patients were discharged apparently cured. At all events, he never saw them again.

He refers to several cases treated without dietary restrictions, save the prohibition of sugar and of oatmeal porridge, and the administration of the sulphocarbolate in varying doses, or with boric acid, modifying the doses to suit the symptoms. Under this treatment the weight of the patients increased, the excretion of sugar was lessened, and one of the patients so far recovered that he was able to lead an adventurous life—exploring, goldmining, etc.—in British New Guinea.—*N. Y. Med. Jour.*

PROPOSED NATIONAL CEMETERY AT SANTIAGO.—The War Department is considering the establishment of a national cemetery near the city of Santiago, Cuba, where the American soldiers who died fighting before that city can be interred. It is altogether probable that a site for a national burying-ground will be laid off soon after the occupation of the island by the American forces.—*Echoes and News.*

THE PHILOSOPHY OF PLAY.—In a very interesting article by Luther Gulick, in Appleton's *Popular Science Monthly* for October, the genetic idea of play is elaborated. The body in reaching adult age must rehearse the history of the race. It starts from a single cell and ends in the most elaborate differentiation. Not only does the body rehearse the life of the race, but the mind also, and the plays of children are the history of these forgotten activities. Thus it is that hunting, fishing, sailing, swimming, mountain climbing and the like are all aspects of our past history, and are pleasurable because in the unconscious memory they are associated with the organism's past welfare. Play is therefore the ontogenetic rehearsal of the phylogenetic series, and the satisfaction that it gives proceeds from the gratification that comes from realizing anew these deep ancestral racial functions.

Editorial.

THE ELEVENTH ANNUAL MEETING OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.*

President Richard Douglas, M.D., of Vanderbilt University, Nashville, called the meeting to order, and the proceedings were opened with prayer by Rt. Rev. Bishop Gailor.

Dr. J. Erskine delivered the address of welcome upon the part of

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* Held at Memphis, Tenn., Dec 6, 7 and 8, 1898.

the medical and surgical profession of Memphis and upon the part of the city as a whole. This was responded to by Dr. Douglas, and he thanked Dr. Erskine for the kindly sentiments expressed, on behalf of the Association.

No time was lost in beginning with the reading and the discussion of the papers, and the first one on the programme was of more than ordinary interest. It was from Dr. W. E. Parker, of New Orleans, La., who, during the late war with Spain, was one of the volunteer surgeons in the United States army. The title of his paper was "Gunshot Wounds," and he gave quite a number of his experiences. It was his opinion that the hospital equipment was inadequate, and while he did not fail to compliment the army surgeons, he was somewhat severe upon the method of handling the wounded, contending that there were too few ambulances and too few nurses, and added that many times wounded men were taken to the hospitals in ordinary army wagons. He did not believe the wounds made by the improved rifles and small guns were as difficult to treat as those which physicians formerly had treated, for they make clean wounds; this was at any rate true of the improved American and the Mauser rifle. Neither of these guns, he thought, was of a sufficiently large calibre for a wound to have immediate effect, and he told of several instances where soldiers had gone on with their work after having received serious wounds.

Dr. Floyd W. McRae, of Louisville, read a paper on the subject of "Penetrating Wounds of the Abdomen," and in the same connection Dr H. Horace Grant, of Louisville, read his paper on the "Practical Side of the Treatment of Bullet Wounds of the Abdomen." This made it possible for all three of the papers to be discussed jointly, and the discussions that followed attracted the attention of all the physicians in attendance. The papers were discussed strictly from the standpoint of the surgeon, and after the delegates had finished their remarks the noon adjournment was taken.

In the afternoon session, among the notable papers read was one by Dr. J. Wesley Bovee, of Washington, D. C., and the afternoon session adjourned during its discussion.

SECOND DAY'S SESSION.

As soon as the morning session was opened the discussion of Dr. Bovee's paper was resumed, and continued until the hour arrived for the President's address.

When Dr. Douglas, of Nashville, arose to deliver the annual address of the chief executive, the big parlors of the Gayoso were well filled. He said:

"As president of this distinguished body I am fully conscious of my exalted position and deeply sensible of the friendly spirit and kindly good will that have induced you to so honor me. This Association, in the ten short years of its history, has become renowned for the excellence of its scientific work, the truthfulness of its records and the spirit of warm

friendship that pervades its membership. And we cannot too cordially express our thanks to Dr. W. E. B. Davis, our permanent secretary, to whose indefatigable efforts the Southern Surgical and Gynecological Association owes its existence and high standing. Nor are we unmindful of our obligation to my distinguished predecessors, who, by their justice, dignity and courtesy in office and wisdom in council, have guided our deliberations and smoothed our difficulties.

"Perhaps a true interpretation of my duties of the hour would demand that I address you by recounting our recent deeds of prowess, arranging in chronological order the victories the allied armies—the science and art of surgery—have won in the great battle against disease and death; or in telling of recent discoveries, new devices and modifications of technique, the territorial acquisitions of our profession. Yet, inasmuch as the greatest latitude is granted me, I prefer to restrict my remarks to a very commonplace subject, but one in which both branches of the Association feel a common interest—that of acute general peritonitis.

"A proper appreciation of the time of the Association will not permit me to discuss this subject in all its phases; for that reason I shall confine myself to an effort to present to you a workable classification. As an introduction to the subject I shall first consider the attempts that have been made to form a classification on a bacteriological basis."

Dr. Douglas then entered upon a technical discussion of the subject he had selected for his paper, thus combining the annual address and a disquisition upon one of the most important subjects which are considered by surgeons and gynecologists. The paper was very generally discussed, and the members evinced their appreciation by liberal expressions of appreciation.

After the discussion of the President's address, which was warmly entered into, Dr. A. M. Cartledge, of Louisville, read a most interesting paper, from which will be found in our department of "Selections" a brief abstract. It shows marked thought, much study and original obser vation.

Several other papers were read during the afternoon session, but all dealt in technicalities and phases of disease of interest only to gynecologists and surgeons, and will appear in due time in the Transactions.

THIRD DAY'S SESSION.

On Thursday morning the Association was called to order promptly on time, and the papers that were read were quickly disposed of. Discussions were limited to five minutes, and by this method it was possible for the convention to get through with the work before it by adjournment at 1:30 o'clock.

Among the papers read were those from Dr. I. S. Stone, of Washington; Dr. W. L. Robinson, of Danville, Va.; Dr. J. B. Murfree, of Murfreesboro, Tenn.; Dr. George S. Brown, of Birmingham, Ala.; and F. W. Parham, of New Orleans.

As soon as the discussion of these papers was over—all of which were technical treatments of subjects pertaining to surgery or gynecology—the final business of the meeting came up, that of the election of officers for the next year, and the selection of a place at which to hold the twelfth annual convention next year. It will be held in New Orleans some time during next November, but the date was not fixed, this being left to the discretion of Dr. W. E. B. Davis, the Secretary.

The officers elected were:

President—Dr. Joseph Tabor Johnson, of Washington.

Vice-Presidents—Dr. W. L. Robinson, of Danville, Va., and Dr. F. W. Parham, of New Orleans.

Treasurer—Dr. A. M. Cartledge, of Louisville.

Secretary—Dr. W. E. B. Davis.

One vacancy only on the Council occurs each year, and the term of office is five years. This time Dr. L. M. Tiffany's term expired, but he was re-elected. His home is in Baltimore. The other members of the Council are Dr. L. S. McMurtry, of Louisville; Dr. George J. Englemann, of Boston, Mass.; and Dr. G. B. Johnson, of New Orleans.

Dr. Ernest S. Lewis, of New Orleans, was made Chairman of the Committee of Arrangements for the next annual meeting.

Just before the convention adjourned *sine die*, resolutions were introduced and unanimously adopted, thanking the profession of Memphis, the various committees which have been conspicuous in making the meeting a success, and the citizens as a whole for the kind treatment and cordiality they had extended to the Association. Then came adjournment.

"VERILY, UPON WHAT MEAT DOTH THIS OUR CÆSAR FEED, THAT HE HATH GROWN SO GREAT?"

The headlines of this article are a sufficient commentary on a new departure in medical journalism. We might write volumes, but prefer to give the literature as we "got it":

"PHILADELPHIA, December 29, 1898.

"*To the Editor and Publisher of the Southern Practitioner:*

"DEAR SIRS—For reasons given in the *Philadelphia Medical Journal* of December 3d, we have concluded that it is better in business, journalistic and professional aspects, to discontinue the entire exchange system.

"We wish to thank you for your courtesy in sending us your valuable journal in exchange for ours during the past year, and beg that you will kindly discontinue the same on exchange account, beginning with January 1st, 1899, at which date we shall also stop sending you our journal except upon definite order at the regular subscription price.

"Cordially yours, GEO. M. GOULD."

This letter, received on the first day of the "New Year," was a revelation to us. We are called "sirs," possibly from the fact that we use the

journalistic privilege of writing "we." But—But—and we yet say But—when the *New York Medical Journal*, the *New York Medical Record*, the *Journal of the American Medical Association*, the *British Medical Journal*, the *Klinische de Wochenschrift*, and journals from all parts of this world, are willing for an exchange of courtesies—yes, from Maine to Louisiana, from the great Hub of the Universe to the Golden Gate—all are willing for jounalistic courtesies:—why this new departure? As he who coined a word, he who was the author of a phrase, said, "POPPYCOCK."

DOUCHE FOR NASAL CATARRH, OZÆNA, ETC.—

℞—Antikamnia and codeine tablets, No. xxiv,

Sig.—Crush and dissolve six tablets in a pint of tepid water and use one-third as a douche three times a day. Shake well before using.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics of the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

SNUFF FOR ACUTE CORYZA, RHINITIS, ETC.—

℞—Acidi Borici Pulv.....ʒi
Acidi Salicylici.....gr. vi
Antikamnia (genuine).....ʒi
Bismuth Sub. Fit.....ʒii

Mx. Sig.—Use as snuff every one, two or three hours, as required.

A GOOD DIURETIC.—Dr. J. W. Pendergast, of the Department of Health, Cincinnati, O., in a recent letter writes concerning Wayne's Elixir, that he has been using it in his practice for many years, and when a diuretic is indicated that there is no preparation with which he is familiar that meets the requirements so well. He feels that he is but doing his duty to recommend to the profession a remedy of such known value.

THE usefulness of GOOD Hypophosphites in Pulmonary and Strumous affections is generally agreed upon by the Profession.

We commend to the notice of our readers the advertisement in this number. "ROBINSON'S HYPOPHOSPHITES" also "ROBINSON'S HYPOPHOSPHITES WITH WILD CHERRY BARK" (this is a new combination and will be found very valuable) are elegant and uniformly active prepara-

tions; the presence in them of Quinine, Strychnine, Iron, etc., adding highly to their tonic value.

VAGUE AND INDEFINITE PAINS DUE TO LATENT RHEUMATIC CONDITIONS.—The physician is frequently called upon to treat patients who, though not ill enough to be in bed, are not at all well. Their appetite is capricious, they sleep indifferently, or even if they sleep soundly they are not refreshed. and in the morning they are more fatigued and ill at ease than was the case on retiring. Upon awaking there is frequently an aching sensation in the loins, sometimes in the lower limbs, which is noticed upon getting out of bed or in dressing, and particularly in putting on their hose or lacing their shoes. As the day progresses this soreness may partially wear off, but there is at all times a vague, undefined, uneasy, painful feeling.

A competent examination of the urine in these cases will, in almost every instance, be found to disclose a notable absence of the soluble urates. On the contrary it may be loaded with the phosphates, and very frequently bile will be present, as also uric acid. If the condition remains neglected, the probable results will be sooner or later a pronounced attack of rheumatism in one or another of its forms. All that is needed to induce such a condition is a sudden change in the weather or the exposure on the part of the patient to cold or wet, or a combination of the two. This is due to a latent rheumatic diathesis, to which every adult is liable.

In such cases the physician will find Tongaline in any one of its forms as indicated, given at short intervals with copious draughts of hot water, a remedy which goes directly to the source of the trouble. Tongaline seeks out the retained excretions or perverted secretions, which it either neutralizes or renders amenable to the physiological action of the emunctories, and then it brings to bear its strong eliminative powers, correcting the complaint promptly and thoroughly.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics at the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

OUR ADVERTISERS.

We begin the initial number of this Journal, now entering on its *twenty-first* year of most successful existence, with a larger and more satisfactory advertising clientele than any previous year; furthermore, exer-

EDITORIAL.

[illegible] supervision over this department of the Journal, which [illegible] care, we can say without hesitation that in the entire [illegible] found a single article that is not well deserving a thorough [illegible] many of them are of well-known, long-tried and established [illegible] and reputation.

[illegible], liquid or in tablets, is a *sine qua non* in rheumatic affec- [illegible] has never disappointed us.

[illegible]'s SADDLE-BAGS can be converted into a most complete [illegible] made of best material and in the highest style of workmanship.

[illegible]-MANGAN ("Gude") will not fail or disappoint you in anemia, [illegible] or blood impoverishment.

[illegible] HYPOPHOS. COMP.; 'FELLOWS', has had many imitators and few [illegible] equals.

ANTIKAMNIA, in powder or tablet, is a most excellent remedy in [illegible].

LISTERINE is the standard of antiseptic preparations. The imitators [illegible] "It is something like Listerine."

THE NASHVILLE, CHATTANOOGA & ST. LOUIS RAILWAY is the best equipped and most handsomely furnished road in the entire South.

WHEELER'S TISSUE PHOSPHATE is a nerve food and nutritive tonic, valuable in consumptive, bronchitis, nervous debility, etc.

SAW PALMETTO is specially valuable in prostatic troubles, pre-senility, difficult micturition, urethral inflammation, irritable bladder and ovarian pains.

MELLIN'S FOOD, prepared according to directions, is a true Liebeg's food, and the best substitute for mother's milk yet produced. Try it and you will agree with us.

MERRIMAN & GLATZ, 55 Maiden Lane, New York, N. Y., will furnish [illegible] on application valuable literature in regard to Creosotal (Creosote Carbonate) and Guaiacol Carbonate.

THE MERRIMGSIDE RETREAT, near this city, is a most excellent charitable institution for treatment of mental and nervous disorders, alcoholism, and morphinism.

LISTERINE is antiseptic and prophylactic, non-toxic and non-irritant, for external and internal use, and is in itself its own best advertisement.

KANNIFANE in malarial regions makes the baby laugh, wax fat and [illegible] gracefully and normally.

THE MARIANI nourishes, fortifies, refreshes, aids digestion, strengthens the system and is an agreeable tonic stimulant without unpleasant [illegible].

HAYDEN'S VIRBUNUM COMPOUND is a boon, indeed, in the ailments of women and in obstetric practice; and the URIC SOLVENT (Hayden's) is a scientific combination for renal disorders.

BROMIDIA is an old favorite the world over, far superior as a brain sedative to opium or any of its alkaloids, and with its companions, PAPINE and IODIA, are all now *standard*.

ROBINSON'S LIME JUICE AND PEPSIN is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other goods.

CELERINA OF RIO CHEMICAL CO. is a most excellent preparation for nervousness. Their ALETRIS CORDIAL not only prevents miscarriage, but facilitates parturition.

GRAY'S GLYCERINE TONIC COMP., is a most excellent pharmaceutical combination, palatable and a true tonic. Try it and you will not be disappointed.

WILLIAM R. WARNER & CO.'S BROMO SODA, ELIXIR SALICYLIC COMP., INGLUVIN and SUGAR-COATED PILLS have well won a world-wide reputation. See their 2 pages in this issue.

GLYCOZONE and HYDROZONE (Marchand's) have never failed to give satisfaction. No disappointment has ever resulted except when a substitute has been palmed off on the unwary and unsuspecting. Bear it in mind, the more excellent a preparation the greater likelihood of substitution.

THE CINCINNATI SANITARIUM is a most excellent private hospital for mental and nervous diseases, opium habit, inebriety, etc., at College Hill, Hamilton County, O. Write to Dr. O. Everts, Superintendent, for particulars.

MR. THEO. TAFEL, 153 North Cherry Street, Nashville, Tenn., can supply you with any surgical instrument or appliance that you may need. If he does not have what you want on hand, he can soon make it. He is reliable, a good workman and keeps nothing but the best.

IMPERIAL GRANUM stands pre-eminent as a food for patients recovering from shock following surgical operations, to the gynecologist it will prove an important aid; in the convalescence from fevers and other continued diseases, and for children it is the most excellent food.

G. W. FLAVELL & BRO., of 1005 Spring Street, Philadelphia, Pa., are well known as reliable manufacturers of Elastic Bandages, Abdominal Supporters, etc. Write them for price list, and anything needed in their line can be sent by mail.

PEACOCK'S BROMIDES is one of the best combinations we have ever tried. CHIONIA is a most excellent hepatic stimulant. CACTINA PILLETS are indicated in abnormal heart action; SENG in malnutrition and indigestion.

BONE-MARROW of Armour & Co , acts as a stimulant to the formative process and increases the red corpuscles and hemoglobin. It is made from absolutely fresh material, and contains all the essential ingredients of raw marrow.

WAYNE'S DIURETIC ELIXIR is used by Prof. W. Frank Glenn and many other specialists in all irritations of the kidneys, bladder, urethra, prostate, etc.; the TONIC APHRODISIAC TABLETS (Wayne) are composed of phosphorus, nux vomica, damiana, saw palmetto and coca.

KRYOFIN : A new candidate for the favor of our readers. Prof. Eichorst, Director of the Medical Clinic of Zurich University, says: "In a man with alcoholic polyneuritis, for whose intense pain, sodium salicylate, phenacetin, antipyrine and exalgin had been prescribed without any effect, by means of *Kryofin* alone very prolonged relief from pain was effected. The drug was prescribed in 7½ grains three times a day.

DRS. HAGGARD, with their Private Infirmary for Women, have met with most satisfactory success during the past year. With everything pertaining to such an institution fully in keeping with the latest and most advanced ideas, the strictest asepsis and antisepsis, conjoined with home-comforts, with both members of the firm residing in the building, what else could be expected?

THE WM. S. MERRELL CO, so well known as reliable manufacturers of Green Drug Fluid Extracts and other pharmaceutical specialties, have an important notice on our first cover page. This establishment is so well and widely known that they need no endorsement at our hands; how ever, we request our readers to look well at their statements, or they may may miss something.

EVE'S SURGICAL INFIRMARY, recently established in the healthiest and most desirable portion of the city, occupies a handsome elevation, enclosing two acres of ground, a most excellent and admirably-arranged building, with all home-like features, yet fully equipped with everything pertaining to the highest advancement of aseptic and antiseptic surgery, and in charge of Drs. Duncan and Paul F. Eve, with a competent resident physician and a full corps of thoroughly trained nurses, needs only to be seen to be admired and commended.

MESSRS. PARKE, DAVIS & CO., of Detroit, Mich., with branch establishments at New York, Kansas City, New Orleans, Baltimore, Walkerville, Ont., and London, England, have done much, indeed, with their extensive establishment in behalf of medical science. The many new remedies introduced by them, the perfect and satisfactory preparation of old remedies, their fluid extracts, elixirs, pills, etc., are well and widely known. If any reader of this journal is favored by a call from any representative of this house he may rely upon meeting a gentleman, courteous and well qualified, and the time devoted to him will be well spent.

Reviews and Book Notices.

ANNOUNCEMENT OF IMPORTANCE TO EVERY PHYSICAN.—Messrs. Lea Brothers & Co. announce for publication in March, 1899, the first volume of *Progressive Medicine*, a new annual which will be issued in four handsome octavo, cloth bound and richly illustrated volumes of about 400 pages each. The several volumes will appear at intervals of three months. In this age of unusual progress, so rapid is the advance in all departments of medical and surgical science that the need for condensed summaries which shall keep the practitioner up to date at the least possible expenditure of valuable time has become imperative. Many attempts in the way of Year-Books, Retrospects and Abstracts have been made to meet this growing need, but in nearly all of these the process of condensing has not been preceded by a sifting of the good from the useless, and consequently the reader is presented with a mass of information from which he must select with care and study the items which are useful and reliable.

What the busy physician needs to-day is a well-told tale of medical progress in all its lines of thought, told in each line by one well qualified to call only that matter worthy of his attention and necessary to his success. He needs material which shall teach him all that the master of his specialty knows of the year's work.

It is with the object of presenting only such readable and useful material that these volumes are to be published, and every contributor to the pages of *Progressive Medicine* will say what he has to say in an original narrative form, so that every statement will bear a personal imprint expressing not only the views of the author cited, but the opinion of the contributor as well.

To insure completeness of material and harmony of statement, each narrative will receive the careful supervision of the General Editor, Dr. Hobart Amory Hare, whose reputation will every-

where it is acknowledged as ensuring practical utility in a high degree. Those associated with Dr. Hare in the production of *Progressive Medicine*, include a brilliant gathering of the younger element of the profession, well representing the class which is so energetically contributing to make modern medical history.

With the appreciation of the self-evident utility of such a work to all practitioners, the publishers are enabled to ask the very moderate subscription price of ten dollars for the four volumes.

The publishers offer to send full descriptive circulars and sample pages to those applying for them.

HUMAN ANATOMY: A COMPLETE AND SYSTEMATIC TREATISE. By Various authors, including a special section in Surgical and Topographical Anatomy. Edited by HENRY MORRIS, M.A., and M. B. LOND. Senior Surgeon to the Middlesex Hospital; Examiner in Surgery in the Univ. of London, etc., 8 vo. pp. 1274, illustrated by 790 woodcuts, mostly original, and over 200 printed in colors. Second edition, revised and enlarged. Price in cloth, $6.00. P. BLAKISTONS', SON & Co., Publishers, 1012 Walnut St., Philadelphia, Pa. 1898.

This Treatise on Human Anatomy is designed for the use of Students.

It aims at being a complete and systematic description of every part and organ of the human body so far as it is studied in the dissecting room.

The different sections have been written by separate authors, whose names and subjects are herewith submitted:

Osteology. By J. Bland Sutton, F.R C.S., Examiner in Anatomy in Royal College of Surgeons; Lecturer on Comparative Anatomy, and Senior Demonstrator of Anatomy, Middlesex Hospital.

Joints. By the Editor, Henry Morris, F.R.C.S., Surgeon to and Lecturer on Surgery at Middlesex Hospital; Examiner on Anatomy in Royal College of Surgeons; Examiner in Surgery in the University of London, etc.

Muscles. By J. N. C. Davies-Colley, F.R.C.S., Mem. Path. and Clin. Soc., London; Fellow-Medico-Chir. Soc.; Surgeon to, and Lecturer on Surgery (late Lecturer on Anatomy), Guy's Hospital, etc.

Blood-Vessels and Lymphatics. By William J. Walsham,

F.R.C.S., Author of "Manual of Practical Surgery," Senior Assistant Surgeon to, and Lecturer on Anatomy at St. Bartholomew's Hospital; Surgeon Metropolitan Hospital, etc.

Nervous System. By H. St. John Brooks, M.D., of Dublin, Secretary for Ireland of Anat. Soc. of Great Britain; Chief Demonstrator of Anatomy, University of Dublin, etc. Revised by Arthur Robinson, of the Middlesex Hospital Medical School.

Eye. By R. Marcus Gunn, F.R.C.S., Mem. Path., Ophthal., and Neurol. Soc.; Surgeon to Royal London and to the Western Ophthalmological Hospitals, etc.

Tongue, Nose, Ear, Heart, Voice, Respiration. By Arthur Hensman, F.R.C.S., Aural Surgeon (late Senior Demonstrator of Anatomy) Middlesex Hospital; Lecturer on Aural Surgery and Anatomy, Middlesex Hospital Medical School. Revised by Arthur Robinson, of the Middlesex Hospital Medical School.

Organs of Digestion. By Frederick Treves, F.R.C.S., Surgeon and Lecturer on Surgery, London Hospital; late Hunterian Professor of Anatomy, Royal College of Surgeons, etc.

Urinary and Generative Organs. The Skin. By William Anderson, F.R.C.S., Surgeon to, and Lecturer on Anatomy, Skin Department St. Thomas' Hospital; Professor of Surgery and Pathology, Royal Academy; late Vice-President Anatomical Society, etc.

Surgical and Topographical Anatomy. By W. H. A. Jacobson, F.R.C.S., Assistant Surgeon to Guy's Hospital; Surgeon to Royal Hospital for Children and Women; Lecturer on Anatomy (late Teacher of Operative Surgery), Guy's Hospital Medical School. Author of "The Operations of Surgery," "Diseases of the Male Organs of Generation," etc.

Vestigial and Abnormal Structures. By Arthur Robinson, M.D., M.R.C.S., Lecturer on Anatomy in the Middlesex Hospital Medical School; Examiner in Anatomy for the Conjoint Board of England.

The illustrations in this book, for the most part, have been engraved from drawings made by special artists. They are generally from original sources; those that are not, have been duly credited; all, however, with few exceptions, owing to re-drawing and engraving, are protected by copyright.

A TEXT-BOOK OF OBSTETRICS. By BARTON COOKE HIRST, M.D., Professor of Obstetrics in the University of Pennsylvania. 8vo, cloth, pp. 846, with 653 illustrations. Price, $5.00. W. B. SAUNDERS, Publishers, 925 Walnut St., Philadelphia. 1898.

After a very chaste dedication to his former master Dr. Penrose, the author gives the outline of his most excellent volume in the following preface which we quote entire:

"This work is the result of a practice devoted for the past twelve years exclusively to gynecology in both its branches—obstetrics and gynecic surgery. The author has served during this period as consulting and attendant gynecologist and obstetrician in eight of the principal hospitals of Philadelphia. His experience in obstetrical complications and operations has consequently been exceptionally large. He has been engaged, moreover, during the whole of his professional career, in teaching medical students in clinics, hospitals, laboratories, and in the lecture-room. He ventures to entertain the hope, therefore, that his training has fitted him for the preparation of a book which shall serve as a guide to undergraduate students and to physicians in active practice. It has been his constant aim to condense the text as far as is consistent with a comprehensive treatment of the subject. Illustrations have been extensively employed, the majority of them from original photographs and drawings. The task, impossible within a single volume, of preseting a complete biography of each subject has not been attempted. The student who desires such information is referred to the 'Catalogue of the Surgeon-General's Library,' the ten volumes of the 'Jahrdsbericht uber die Fortschritte auf dem Gebiete der Geburtshilfe und der Gynäkologie,' and to the 'Index Medicus.' References are given to articles and books which have been most hopeful to the author or which have been epoch-making in the history of obstetrics."

THE PRACTITIONER'S MANUAL: A condensed System of Medical Diagnosis and Treatment. By CHARLES WARRENE ADAMS, M.D., Consulting Genito-Urinary Surgeon to the City (Charity) Hospital, Consulting Dermatologist to the Randall's Island Hospital, to the Hackensack Hospital, to the Bayonne Hospital, to the Infant Asylum of the Holy Rosary, Attending Surgeon to the Good Samaritan Dispensary (Department of the Skin), etc. 8vo, pp. 851. Muslin, $6, net; half-morocco, $7, net.

This book is intended as the physician's *Vade Mecum*. In it will be found, alphabetically arranged, short dissertations upon all medical diseases, condensed, practical and to the point, together with a great number of prescriptions. These formulæ have been specially collected by the author from eminent medical men in this country and abroad, and are their favorite prescriptions which they have found of most value in their own practice. The result is a unique collection, and cannot fail to be of the very greatest value. Whether on the office desk or under the carriage seat, the book may be turned to in time of doubt, forgetfulness or uncertainty, and the desired information gained without loss of time. A complete index makes the contents more readily accessible. A most excellent addition to the medical literature of the year.

THE MEDICAL NEWS POCKET FORMULARY FOR 1899—Containing sixteen hundred prescriptions representing the latest and most approved methods of administering remedial agents. By E. QUIN THORNTON, M.D., Demonstrator of Therapeutics, Pharmacy and Materia Medica in the Jefferson Medical College, Philadelphia. In one wallet-shaped volume, strongly bound in leather, with pocket and pencil. Price, $1.50 net. LEA BROTHERS & Co., Publisher, Philadelphia and New York.

A more hopeful book it would be difficult to devise. No man, except a specialist like the author, can be expected to keep posted on all the new remedies and to reject those which are worthless, together with those which are outworn, leaving a net residue representing the body of the best therapeutics at date. Dr. Thornton has done this, arranging the prescriptions under alphabetical headings of disease, so that the medical man, be he physician, surgeon or specialist, can instansly run his eye over the authoritative recommendations of the world's leaders in all the practical branches of medicine in the broadest sense of the term. The author has subjected each prescription to careful study and verification; and has appended useful annotations and [illegible] as guidance in meeting the various stages and complications. Due attention has been paid to palatability and pharmaceutical elegance, points of increasing practical importance. The volume opens with a number of pages of useful data.

PRACTICAL URANALYSIS AND URINARY DIAGNOSIS: A Manual for the Use of Physicians, Surgeons, and Students. By CHARLES W. PURDY, M.D., LL.D., (Queen's University); Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Clinical Medicine in the Chicago Post Graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys"; also of "Diabetes: Its Causes, Symptoms, and Treatment." Fourth, Revised Edition. With numerous illustrations, including photo-engravings and colored plates. In one crown octavo volume, 365 pages, bound in extra cloth, $2.50 net. THE F. A. DAVIS CO., Publishers, 1914–16 Cherry St., Philadelphia; 117 W. Forty-Second St., New York City; 9 Lakeside Building, 218–220 S. Clark St., Chicago, Ill.

This is one of the best works of the kind that has yet been published. It covers the ground of uranalysis and urinary diagnosis in a very lucid, comprehensive and practical way. It contains a chapter devoted to the examination of urine for life insurance. Its numerous illustrations and colored plates of urinary sediment are fine, and the context is of such trustworthy character that it becomes an invaluable book for both the student and practitioner of medicine.

DIET FOR THE SICK. By Miss E. HIBBARD and Mrs. EMMA DRANT, Matrons at two large Hospitals in Detroit. 103 pages, board sides; postpaid, 25 cents. THE ILLUSTRATED MEDICAL JOURNAL CO., Detroit, Mich.

This is the third edition of this handy and popnlar little bedside book. The recipes for sick dishes have all been tried, and are those largely used by the Detroit hospitals where the two contributors of them served as matrons. The booklet is intended to be given to the family by the physician, and for such purposes one-half dozen will be sent, prepaid, on receipt of $1.00.

A PRIMER OF PSYCHOLOGY AND MENTAL DISEASE for Use in Training Schools for Attendants and Nurses and in Medical Classes. By C. B. BURR, M.D., Msdical Director of Oak Grove Hospital for Nervous and Mental Diseases, Flint, Mich.; formerly Medical Superintendent of the Eastern Michigan Asylum; Member of the American Medico-Psychological Society, etc. Second Edition, Thoroughly Revised. Extra Cloth, $1 net. THE F. A. DAVIS CO., Philadelphias New York and Chicago.

To the physician this pnblication is welcome. One cannot read it without being pleased that there is, in such readable form, so much that is essential.

[illegible] Its Uses and Dangers as Affecting Hered- [illegible] Essentials to the Welfare of the Individual and [illegible] the Race. By James Foster Scott, B.A. (Yale Uni- [illegible] M. Edinburgh University). Late Obstetrician to [illegible] Hospital for Women, and Lying-in-Asylum, Washington, [illegible] Vice-President of the Medical Association of the District [illegible], etc.

This book contains much plain talking. Its justification [illegible] found in the body of the work.

[illegible] men give rein to their animal passions, subjecting [illegible] and others to so many risks of which they are ignor- [illegible] intensely saddening.

The design of this work is to furnish the non-professional [illegible] with a sufficiently thorough knowledge of matters pertain- [illegible] the sexual sphere—knowledge which he cannot afford to [illegible] without.

An American Text-Book of Diseases of Children, including spec- [illegible] Chapters on Essential Surgical Subjects, Orthohædics, Diseases of the Eye, Ear, Nose and Throat; Diseases of the Skin; and on the Diet, Hygiene and General Management of Children. By American Teachers. Edited by Louis Starr, M.D., assisted by T. S. Wes- [illegible], M. D. Second Edition, Revised; pp. 1244. W. B. Saunders, [illegible] Walnut street, Philadelphia, publisher.

Well, we can only say, in brief, we have before us a true text book on diseases of children. We might write more, but we will limit our remarks to saying that it is "true work, tried work," and its teachings only need to be seen to be appreciated. Yes, indeed, a grand work, that will prove a boon indeed to the children of the future, if only its pages are studied. You can read here, mark inwardly, learn and prosper.

The Medical News Visiting List.

This favorite list is now published in four styles: Weekly, dated, for 30 patients; Monthly, undated, for 120 patients per month; Perpetual, undated, for 30 patients per week per year; and Perpetual, undated, for 60 patients per week per year (without text). The first three styles contain 32 pages of text and 160 pages of blanks. The 60-patient style consists of 256 pages of blanks. Wallet size, flexible leather cover, pocket and pencil [illegible], in any style, $1.25.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

DEVOTED TO MEDICINE AND SURGERY.

SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.

DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

Vol. XXI. NASHVILLE, FEBRUARY, 1899. No. 2.

Original Communications.

CROUPOUS OR LOBAR PNEUMONIA.*

BY W. E. M'CAMPBELL, A.M., M.D., PROFESSOR

Of Principles and Practice of Medicine in the Medical Department of the University of Tennessee.

Mr. President and Gentlemen of the Academy :

Your Secretary in his notification, gave me but little time to prepare a paper on this well worn and somewhat hackneyed subject; but as I suppose the object is to simply bring out the views of members in regard to a disease that is now, and for some months will be in all probability somewhat prevalent, I have hurriedly prepared this paper. Having no innovations to sug-

*Read at the Nashville Academy of Medicine, Dec. —, 1898.

[illegible]

[illegible] vitality of the subject [illegible] great changes in temperature [illegible] which similar changes are frequent, especially when accompanied with a human condition of the atmospheric [illegible] in the development of the disease, hence the greater frequency in the winter and spring months. Alcoholic subjects frequently develope the disease from the fact that they do not possess [illegible] the changes of temperature and also the depressing and injurious action of the alcohol. Since the microscope has been used so constantly in pathological study great changes have occurred as to the etiology of many diseases, and in some have the ideas formerly entertained been more radically changed than in croupous pneumonia. Causes formerly regarded as exciting are now known to be merely predisposing, either increasing the energy of the exciting cause or lessening the resisting powers of the individual. The exciting cause, the micrococcus pneumonia, was discovered in the sputum of healthy

individuals by Sternberg in 1880, also by Pasteur in the same year. The micrococcus discovered in the sputum of healthy individuals was identified through inoculations and cultural experiments with the micrococcus found in the rusty sputum of pneumonic patients. Solomon, Sternberg, Frankel, Wieschelbaum, and others found the diplococcus lanceolatus to be the exciting cause of croupous pneumonia in man. While found by Sternberg in saliva of healthy individuals in 20 per cent. of cases examined, it is constantly found in the sputum of individuals having lobar pneumonia. It may penetrate from its primary seat in the mouth to almost any part of the body, having been fully identified in the pus of meningitis, ulcerative endocarditis, otitis media, arthritis, pleurisy, etc. The frequent occurrence in the mouth without pneumonia being developed shows that the predisposing factors are necessary, and that they act either by increasing the virulence of the diplococcus or by lowering the resistive power of the individual. It is possible that some of the irregular forms of pneumonia are produced by the bacillus of Friedlander.

For convenience of description we divide pneumonia into the first, second and third stages, or the stage of congestion, red and gray hepatization. At the postmortem table, and even at the bedside the three stages can be recognized.

In an autopsy, death having occurred during the first or stage of engorgement, the following facts will be noticed. Opening the chest the diesased lung does not collapse, is of deeper red color than normal, weight increased, more resistant than normal on pressure, all of which is due to the congested condition of blood vessels and extravasation of serum. Section permits exudation of more or less blood-stained serum with which air from the alveoli is mingled, giving it a frothy appearance, crepitation in this stage is due to the existence of more or less of the effusion or exudate remaining in the congested lung. The microscope shows the blood vessels dilated and tortuous, and the cells lining the alveoli swollen. As exudation increases, the volume of the lung increases, it is firmer, of a deeper red color, crepitates less, is more friable and the cut surface has a granular appearance, due to exudation in the alveoli. The microscope shows the exudate to contain fibrin,

red blood corpuscles, [illegible] epithelium and pus cells; the section having been properly stained the diplococcus may be seen.

The third stage or [illegible] is a gradual process of degeneration and absorption. It is recognized on section by its mottled gray [illegible]. The changes in [illegible] may be due to compression of capillaries, increase in leucocytes, and fatty degeneration of exudate. In this stage the exudate being partly removed by absorption and excretion, resolution which was absent during the second stage returns. Should the disease not progress favorably during the third stage, the pathological conditions which are usually present are abscess, gangrene, purulent infiltration of [illegible] pleura may be found. It is not necessary to speak of the [illegible] found in connection with the complications, such as pleurisy, empyema, etc.

The symptoms and physical signs vary not only in the different stages of the disease, but in different cases, differing in age, habits, etc.

A typical case of lobar pneumonia will usually be ushered in by an [illegible] chill, well marked. The chill is followed by rapid rise of temperature, the [illegible] reaching [illegible]. Pulse full and bounding, ranging from [illegible]. Respiration accelerated in the earliest stage and may reach [illegible] per minute. Coincident with or soon after the chill a [illegible] or severe. The pain is usually felt in the affected side.

The [illegible] is dry and hacking and is restrained on account of the pain it causes. The sight is not accompanied by expectoration [illegible] is a well marked symptom. The [illegible] will [illegible] be followed by brick-red [illegible], which is often very tenacious, requiring a [illegible] on the part of the patient to eject it. The [illegible] is almost pathognomonic. The [illegible] a mahogany colored spot [illegible] the [illegible] gradually [illegible]. The cough [illegible] is restrained as much as possible, the [illegible] in the lips, nose and cheeks. There [illegible] a history of [illegible] of fever, increased respiration [illegible] will usually be sufficient to make a

diagnosis. In children and old age the symptoms and signs are not the same as those found in middle life. In old age the chill does not always occur, but when a well marked chill does occur in one past 60 years of age pneumonia should be suspected. Rigors and pain in the side are often the initial symptoms, while some cases develope by gradually increased respiration, slight fever and short hacking cough. In children the initial symptoms may resemble those of the exanthematous diseases, viz: headache, nausea, vomiting, delirium and convulsions; or after exposure to the influences of some of the predisposing causes the child may retire perfectly well to be awakened during the night with a hot, dry skin, a full bounding pulse, flushed face, hacking cough and breathing quickly accelerated. Rapid breathing is not a prominent symptom in old age, but is always present in children. Delirium is often present in children especially when the apex of the lung is affected, which is by no means uncommon.

The physical signs will not only enable us to differentiate pneumonia from other diseases; but also to determine the progress or stage of the disease.

In the stage of congestion, inspection shows diminished respiratory movement. Palpation—vocal fremitus increased. Percussion—slight dullness, unless the inflammation be central when normal resonance may be heard.

Auscultation gives crepitant rales, which are heard in this and in the third stage. This is not always heard, many conditions preventing it.

In the second stage, in which the lung is solidified, the physical signs are well marked. Inspection shows diminished movement on the affected side, on the opposite being increased. Palpation usually shows increased vocal fremitus. The fremitus may be normal if the pneumonia is entirely central, or may be entirely absent as a result of pleuritic changes.

Percussion gives dullness, corresponding to the extent of solidification.

Ascultation will detect bronchial breathing. This may be obscured by the bronchi being plugged up with mucus or by changes in the pleura. Broncophony will be heard. The physical signs are not so well marked in old age.

In the third stage, when resolution occurs, we have a gradual return of the signs obtained in the first stage. Should the disease terminate in abscess, gangrene, purulent infiltration or interstitial pneumonia the physical signs usual in such conditions will be noted. The disease will have to be differentiated from many other diseases or conditions, such as congestion of the lungs, œdema, pleurisy, lobular pneumonia, acute phthisis and meningitis. Time will not permit me to state how this should be attempted. The prognosis will depend upon the previous condition of the patient, age, amount of lung involved, complications and often upon treatment received at the hands of the attending physician. Notwithstanding the fact that pneumonia is regarded as a self-limited disease, reaching its crisis in from five to nine days, we believe that prompt and judicious treatment will lessen the severity of the disease, render the patient more comfortable, and possibly hasten the crisis. No stereotyped prescription, or single plan of treatment can be successfully used. The obstruction to the pulmonic circulation caused by the pathological changes in the lung structure soon increases the tension in the right side of the heart and may eventually overcome it. This should, of course, be guarded against. Although it is not a common practice, bleeding when indicated by marked dyspnœa, a full bounding pulse, severe pleuritic pains, will add to the comfort of the patient. The quantity of blood to be taken cannot be determined beforehand, but a sufficient amount, usually about 15 to 20fʒ, will relieve the dyspnœa, soften the full, bounding pulse, and lessen the pain. Bleeding whether general or local, should never be resorted to except during the first stage, or the beginning of the second stage. In pneumonia the pulse is usually full and bounding in the first stage, but occasionally the heart's action is feeble from the very outset, and in such cases stimulants are indicated. Strychnia in doses of 1-40 to 1-30 gr. every 4 or 6 hours we believe to be the best, although many use and recommend whisky or brandy. The guide in determining the quantity and frequency of administration of either or both will be state of the heart and pulse.

Digitalis if used indiscriminately may be positively injurious instead of beneficial. In the third stage of the disease, or at the crisis the drug may be given, especially when the heart's action

is greatly enfeebled. The treatment of the disease with ice-cold applications may be beneficial in well equipped infirmaries or hospitals, with intelligent trained nurses to carry out this part of the treatment; but in private practice, when a member of the family is the attendant I would hesitate to recommend it. The temperature, although often high, is not *per se* dangerous, but may be reduced by sponging. The pain, which is often severe, may be relieved during the first stage of the disease by minute doses 1-16 to 1-12 gr. of morphia, or by Dover's powder. Warm applications applied to the chest often act like magic in diminishing the pain and should be tried.

Should we blister in pneumonia and if so when? Not in the first or second stage; but late in the disease, when resolution is delayed, as determined by a physical examination of the chest, where crisis is imperfect and convalescense does not progress satisfactorally, a good blister may prove very beneficial. When stimulating expectorants are indicated AM CO_3 may be given in small doses at short intervals. Nourishment should be given at regular intervals, and in a form easily digested.

OBSERVATIONS ON A NEW COAL-TAR PRODUCT.

BY S. A. BILLINGS, M.D.
House Physician, Almshouse Hospital,

AND H. A. ENGELHARDT,
House Physician, Workhouse Hospital,
Blackwell's Island, New York.

In the last decade modern medicine has made remarkable headway in the discovery of the causes of infcetious diseases, and during this time modern chemistry has been not less active in discovering the material necessary to combat them. All must admit that a full realization of the capabilities of synthetic chemistry is not as yet possible, but the immediate advantages are obvious. When, for instance, we consider that the invaluable salicylates can now be freed from all objectionable properties, while their therapeutic power is at the same time enhanced, no one will gainsay that synthetic chemistry has in this

some achieved a great victory in the interests of medical science.

The coal-tar products hold undoubtedly one of the first ranks in the modern materia medica. The group is bewilderingly large, and each new addition but increases the intricacies of the maze. All are more or less antiseptic, analgesic, antipyretic and sedative in their therapeutic action, and the clinical value of each depends upon the predominance of one or the other property, and the amount of depreciation from the coincidence of some undesirable effect. The drug par excellence must therefore have the desired action in a marked degree, so that it may be reliable in small doses; it must be palatable and without by-effects, so that it may be safe and easily administered to any patient.

Antipyrin was the first, discovered by Ludwig Knorr in 1884. It surely reduces the temperature, but not infrequently it causes vomiting and collapse. Since then many others were found, as acetanilid, phenacetin, lactophenin, triphenin, phenocoll, etc., but only few attained practical value. The virtues and faults of each are too well known to need repetition here.

In 1895 Dr. Bischler, Privat-docent of Chemistry at the University of Zurich, produced a new coal-tar drug which from its chemical relations promised clinical advantages This product he called kryofine. It is a p-phenetidin derivative like phenacetine, being the condensation product from phenetidin and methoxacetic acid. Phenacetine is acet-p-phenetidin, while kryofine is methoxacet-p-phenetidin; the difference in the component acid renders the drug more readily saponifiable with alkali or acid, the difference being as six to one. When we now consider that before absorption these drugs are subjected to the action of the stomach acid and the intestinal alkali, it is evident kryofine being absorbed in a greater percentage must be more powerful, and perhaps for the same reason more prompt in its effects. The clinical tests giving the proof for this theory were first made by Eichorst.[2]

Kryofine is soluble 1:600 in cold water, 1:52 in boiling water; freely soluble in alcohol, ether, chloroform and the oils in excess. It appears in white, colorless crystals which have no taste. It is incompatible with the chloride of mercury, the iodides of arsenic and mercury, the ferric salts in solution,[5] tincture of iodine and vegetable astringents.

Experiments made upon dogs showed that extremely large doses (180-200 grs. in a medium-sized dog) would cause death by general paralysis, slowing of the pulse and respiration.[7] The drug produces no pathological changes in the kidneys, nor does it affect diuresis. It can be detected in the urine in from fifteen to twenty minutes, disappearing within six to eight hours. Albumen is not found in the urine, even when the drug has been administered continuously and in large doses. In the spectroscope the urine shows no special features, and, above all, the methemoglobin line is absent.[10] The urine contains both phenetidin and p-amido-phenol, and hence a reaction occurs in the organism similar to that which Muller[11] has demonstrated in regard to acet-phenetidin. The anti-neuralgic action is therefore effected by the para-amido-phenol, reinforced by the methyl group as well as by the ethyl group, which results from the partial separation from the p-phenetidin. The chief action, however, of the amido-phenol is antipyretic.[14] In this connection it is found that kryofine is more prompt and more harmless than phenacetine.[12] Respiration is not affected by the drug. The pulse becomes fuller and stronger with the disappearance of dicrotism, the increase of the blood pressure being in harmony with the fall in temperature.[6] Normal temperature is not influenced, while high tempeaature is promptly and surely reduced in a marked degree, the full effect being attained in about thirty minutes and extending over about three hours, without depression or other ill effects. Upon the blood itself the drug seems not to have that peculiar action characteristic of some members of the group—that of reducing oxyhemoglobin and changing it to methemoglobin. This partly accounts for the non-appearance of cyanosis after kryofine.[9] The antipyretic effect is produced by the increased irritability of the heat centre and stimulation of the vaso-motor dilators, so that the heat centre responds to a lower temperature and peripheral radiation is increased.[5]

Most coal-tar products produce diaphoresis, while this drug very rarely is attended by the same. In acute and chronic nephritis no bad effects are noted, and in acute and chronic endocarditis and pericarditis there is no manifestation of depression after the use of kryofine.[4]

Kryofine has a remarkable action on neuralgic pain, and in some people produces a tendency to sleep.[7]

Kryofine diminishes the instability and conductibility of the sensory nerves and the posterior columns of the cord, as well as the sensory areas of the cerebral cortex. This makes it a pronounced analgesic, and this power, together with a certain inhibitory action which it appears to exert on the cortical and subcortical motor centres, makes it a sedative.[6]

In influenza it not only alleviates pain, but also reduces temperature and prevents a further rise of same; its action is one opposed to the production of fever.[8]

During the last six months of our experience with this new drug we have not noted any gastric irritability, or, in fact, any objectionable collateral symptoms, attending its use in any case. The usual dose is from four to seven and a half grains. In some cases we have given fifteen grains t.i.d., of the powder.

In illustration, a few of the various cases in which kryofine was used are cited, and while in these instances the drug was administered chiefly for its antipyretic action, it should be noted that the relief of pain was also remarkably well effected. It may be of interest to state that in these cases, excepting general attention to hygiene, no other medical treatment was instituted.

Case I—Pnemonia.—Annie M., age 58. Admitted to the hospital on the morning of March 15, and gave a history of a severe chill two days before admission; since then has suffered terribly with pain in her left side. At the time of admission she had complete consolidation of the lower lobe of the left lung; was very cyanotic, and complained a great deal of the pain in the left side.

At 10 A. M. temperature was 104.4°, respiration 52, pulse 110. Ordered 7½ grs. kryofine, and at 12 M. temperature was 100.2°, respiration 42, pulse 100. The pain in the side was markedly diminished and she rested quietly. Her temperature remained below 101° until 7 P. M., when it reached 103.2° Repeated kryofine. At 10 P. M., temperature 99.8°, respiration 38, pulse 102. The pain had entirely disappeared. For the following five days she was given 7½ grains of kryyfine t.i.d.; this held the fever and pain in abeyance, the temperatare at no time rising above 102°. Resolution then set in and the patient made a speedy recovery.

Case II—Acute Pleurisy.—M. L., age 24. The disease be-

gan June 24 with a chill. Patient complained of a severe pain in the left side.

5 P. M., temperature 103.6°, respiration 36, pulse 101; ordered kryofine 7½ grs.

8 P. M., temperature 101.4°, respiration 30, pulse 90.

July 24, 8 A. M., temperature 103°, respiration 30, pulse 100.

1 P. M., temperature 102.5°, respiration 30, pulse 96.

July 25, 8 A. M., temperature 102°, respiration 30, pulse 98. Kryofine, 7½ grs.

1 P. M., temperature 100, respiration 24, pulse 86; pain very much diminished.

July 26, 8 A.M., temperature 100.4°, respiration 36, pulse 90.

1 P. M., temperature 98°, respiration 24, pulse 84; pain entirely gone; recovery rapid and uneventful.

Case III—La Grippe.—Patrick O., age 42. Admitted on April 2nd, complaining of severe pains all over his body. Temperature 104.4°, respiration 28, pulse 112. Ordered kryofine 7½ grs., to be given every four hours.

April 3, pains greatly relieved.

9 A. M., temperature 102, respiration 24, pulse 96.

12 M., temperature 102.2°, respiration 25, pulse 98.

6 P. M., temperature 102.5°, respiration 26, pulse 102.

April 4, patient felt much better.

9 A. M., temperature 100°, respiration 24, pulse 92.

12 M., temperature 101, respiration 24, pulse 96.

6 P. M., temperature 100.2°, respiration 22, pulse 96.

April 5, 9 A. M., temperature 99.2°, respiration 24, pulse 90.

12 M., temperature 98.8°, respiration 22, pulse 88.

6 P. M., temperature 99.8°, respiration 22, pulse 90.

April 6, 9 A. M., temperature 98.2°, respiration 20, pulse 90.

After this temperature remained normal and in a few days the patient was entirely well.

Case IV—Acute Endocarditis.—Annie B., age 24. Patient was recovering from an attack of acute rheumatism when, on the 9th of July, her temperature registered 101.2°, respiration 22, pulse 102.

July 9, 9 A. M., temperature 102°, respiration 24, pulse 102.

5 P. M., temperature 103°, respiration 28, pulse 112; ordered kryofine, 7½ grs.

July 10, 9 A.M., temperature 101°, respiration 26, pulse 108.
1 P. M., temperature 100°, respiration 24, pulse 98.
5 P. M., temperature 99.5°, respiration 24, pulse 98.
July 11, 9 A. M., temperature 100.4°, respiration 26, pulse 96.
1 P. M,, temperature 98.4°, respiration 24, pulse 84.
5 P. M., temperature 98°, respiration 24, pulse 78.

Temperature and pulse became normal; pain had disappeared from the precardial region, and with it the murmurs.

While our experience with the drug thus far has not been sufficiently extensive to warrant positive conclusions, the following statements appear to be well supported by the clinical observations made:

Kryofine is an excellent analgesic and a marked hypnotic. As an antipyretic it reduces temperature surely, promptly and safely; it lessens or relieves insomnia, it has a general tonic action; dicrotism vanishes, the heart is not additionally burdened. In fact, it seem to have the advantages of the bath, with the additional merit of being always applicable, and of not requiring the safeguard of a stimulant to counteract consequent depression. Its action as an antiseptic seems to be sligh, but may be incidentally of advantage in intestinal affections.

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REPORT OF TREATMENT OF SECONDARY ANEMIAS, WITH CASES.

BY J. A. STOUTENBURGH, M.D.,
Late Resident Physician, Columbia Hospital, Washington, D.C.

These anemias accompany or follow other abnormal conditions, and play an important part in their course. If not relieved, they prolong the original attack, and when convalescence is finally established, leave the patient a shining mark for those infectious diseases which claim for their victims those whose resistive power is below the normal standard.

In most anemias the blood is diminished in volume, the corpuscles in number and the hemaglobin sometimes falls to less less than half the normal percentage. As a result the oxygen-carrying power of the blood is impaired, tissue metamorphosis retarded, and nutrition of the whole body suffers in proportion to the degree of the anemia. There is loss of appetite and constipation, and the work of living is but lazily done.

Treatment.—First. Regulate the bowels; for this podophyllum in small daily doses is effective. Second: cause patient to drink freely of good water, boiled preferred, taking a glassful hot three-quarters of an hour before each meal: This fills up the circulation and facilitates excretion of waste products. Third: give appropriate treatment for the original disease, and Fourth: we need a remedy or combination of them that will increase the oxygen-carrying power of the blood, increase the appetite and stimulate the stomach and intestines to renewed activity.

Many so-called blood-makers attempt to do too much for us by supplying pre-digested and artificial food. It is better to give nature a chance, by coaxing her to resume her work, and then furnishing a nutritious and easily digestible diet.

Gray's Glycerine Tonic Compound is a preparation meeting the fourth requirement, and it has done me excellent service in

many cases besides those here reported. It is made by the formula of Dr. John P. Gray, a combination of sherry wine, phosphoric acid, gentian, taraxacum, glycerine and aromatics.

The following cases from my note-book will best illustrate my points:

Case I. Mary P——, aged 24, seen first June 11, 1897.

History.—Had several attacks of malaria during fall of 1896, intermittent and remittent types; suffered two severe attacks of bronchitis during February and March, and had malaria again in May. Has been sick now six days.

Examination shows a profound anemia, rapid and very small pulse, temperature varying from 99.6° to 103°, as shown by later observations. Diagnosis, remittent malarial fever and anemia.

Treatment began with calomel, followed by quinine in doses five grains every hour for four hours each morning, and small doses of podophyllin at night, plenty of boiled water, and a liquid diet rich in nitrogenous elements. Fever continued one week, but being convinced that anemia was partially responsible for it, on third day ordered Gray's Glycerine Tonic Compound in half-ounce doses every four hours before taking food. This was continued four days with quinine as above, when temperature was normal. Now put on full diet, tonic continued before meals, and quinine gr. ii. after meals. Treatment continued ten days, when patient reported a gain of four pounds, great increase in strength and growing appetite, pulse strong, appearance much improved. Tonic continued ten days longer, when a fine color and strong pulse evinced perfect health.

Case II. Margaret G——, aged 36, widow, first seen May 17, 1867. Took cold in March, had a constant cough, lost appetite and flesh, constipation, and has sweats and fever. Has taken several preparations of cod liver oil, iron, hypophosphites and various cough mixtures without material relief.

Examination.—Roughened bronchial respiratory murmur, small moist rales over left apex, some dryness and fine whistling rales over right; no dullness elicited; anemic murmur at base of heart; pulse soft, 100. expectoration scant, glairy.

Treatment —For bowels, same as Case I, boiled water to be drunk freely, and a mixture containing codeine one-sixth grain

and beechwood creosote m.i in ʒi of strong syrup of ginger, to be taken every four hours to relieve cough. Gray's Glycerine Tonic Compound was begun at once, taken after meals on account of irritable stomach.

May 27.—Cough slight, no expectoration or sweats, sleeps and eats well; auscultation, respiratory sounds much improved, a few moist rales over left apex, codeine mixture given twice a day. Tonic continued.

June 7.—All symptoms have disappeared; examination negative; pulse strong, condition excellent, although she is supporting herself and children by hard work.

Case III. Mary M——, 42, widow, first seen June 5, 1897. Was operated on for fibroma uteri one year ago, ovariotomy and partial hysterectomy being done. Since then has suffered constantly with stubborn constipation, anorexia and indigestion. Of late has had constant headache; cannot retain food, bowels not moved for six days, has distension of abdomen coming on every afternoon, accompanied by intense pelvic pain.

Examination showed marked anemia, tympanitis, bowels loaded, and a fibroid reaching half-way to the navel and nearly filling hollow of sacrum.

Treatment.—Enemata to clear out bowels; copious drinking of hot water; liquid diet; hot stoups for pain. Improvement is rapid. On the third day retained food. Gray's Glycerine Tonic Compound in tablespoonful doses, well diluted, was given before meals and quinine gr. 2 afterward; food gradually increased. On the fifth day bowels moved naturally, distension ceased and appetite improving. One week later was much better; good appetite, bowels moving daily; is now doing her own work. She drank hot water before meals and continued the tonic for two weeks longer, when she reported that she was in better health than for years, and had gained eight pounds since beginning treatment.

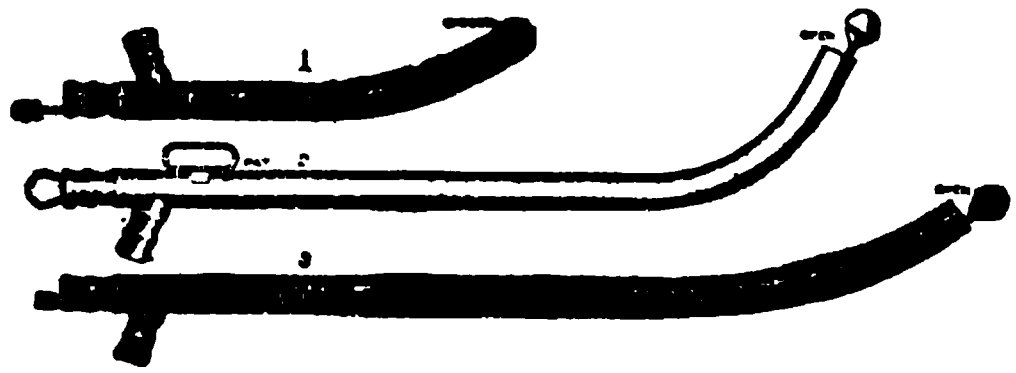
These are some of the cases in which I have used this new restorative with the best satisfaction. I am well satisfied that we have in this tonic a most valuable medium, one sure to grow in favor as its merits become better known.

Selections.

CATHETERS AND CYSTITIS.—It is well-known that when it is necessary to use a catheter of usual construction—that is, with the ordinary fine perforations as an inlet thereunto—it does not work readily or satisfactorily, or subserve fully the results expected from it.

Examples of such unsatisfactory operations are seen where there is a good deal of mucus present in the bladder, such mucus being apt to surround or lie upon the end of the catheter, clogging or stopping the apertures thereof and preventing the ingress of fluids to be drawn off; again, when sediment or calcareous matter is present it clogs; even sometimes filling in part or completely the apertures, with consequent failure of the catheter to fully perform its functions. Such failures are especially apt to happen in nearly, if not quite, all forms of chronic diseases of the bladder, and notably so in cystitis.

My object, therefore, is to present a catheter that is reliable and efficient in operation when the use of a catheter is indicated in all conditions and diseases of the bladder. In this instrument the danger of clogging or failure to perform its functions is obviated, and its interior may readily be made aseptic, and bits of mucus that usually clog an ordinary catheter may be readily drawn off.



This catheter is of very simple construction, being tubular, with the curve of an ordinary instrument, and opened at the end for an inlet. For the closure of this open end, and for the easy insertion of the catheter, as well as for other purposes, a bulb-

ous or rounded head is used, preferably solid, and attached to one end of a wire, passing through the body or tube and projecting at its rear or outlet end.

This construction forms a very efficient catheter, having an area of opening so large as to greatly obviate the danger of clogging, for if mucus should lodge against the open end the working of the head back and forth upon its seat would cut away the obstructing bits of mucus and permit them to pass through the tube.

With this instrument there should be no hesitancy in using nitrate of silver, iodine, corrosive sublimate, carbolic acid or hydrogen solutions in the bladder, as any of these solutions can be readily drawn off or neutralized, thus preventing poisoning from absorption, or preventing rupture from gases that form in the bladder.

Regarding the treatment of cystitis with the employment of this catheter, presuming that we have a typical case, with ropy, viscid and tenacious mucus, the membrane thickened and possibly ulcerated, and in deep folds—"ribbed" as it were—we begsn the treatment as follows:

1. Inject a quarter of a grain of cocaine dissolved in a drachm of water into the membraneous portion of the urethra.

2. Anoint the largest hard-rubber catheter that can be well passed into the bladder, and increase the size one number each week until the urethra is normal in size.

3. Begin with dilute hydrogen solutions—preferably hydrozone—one part to twenty of lukewarm water, using this solution freely, especially when employing the large size catheter. If the small size is used at the beginning, I recommend the use of only two or three ounces at a time until removed by the return flow. This can be repeated until the return flow is clear and not "foaming," which indicates that the bladder is aseptic.

4. Partly fill the bladder with the following solution: Tincture of iodine compound, two drachms; chlorate of potassium, half a drachm; chloride of sodium, two drachms; warm water, eight ounces. Let it remain a minute or so and then remove. This treatment should be used once or twice a day.

Where I suspect extensive ulceration I recommend once a week the use of from ten to twenty grains of nitrate of silver to

the ounce, and neutralize with chloride-of-sodium solutions.

This treatment, carried out carefully, will be satisfactory, as there is no remedy that will destroy bacteria, fetid mucus, or sacculated calcareous deposits like hydrozone.—*R. N. Mayfield, M.D., of New York, in N. Y. Med. Journal.*

THE DISEASES OF NATIONS.—Looked at from more points of view than one, the nation has many of the characteristics of the individual. In periods of international unrest, when rumors of war, or, as in the case of the United States, its stern realities, are upon us, the great aggregation of elements known as a nation takes on an even more distinct individuality than usual, and presents itself to the mind in the form of some representative and clearly defined personality.

While the recognition of the fact that a nation possesses many of the characteristics of an individual organism is most pronounced, perhaps, during the fever and madness of war, we do, at all times, unconsciously but habitually speak of nations as possessing and exercising the functions of the individual. Nations are "born" amid the throes of a revolution; "nursed" through their childhood and youth; "come of age" and grow to full manhood; have "offspring" in the shape of colonies, which are nourished, neglected, or abused, as the case may be, by a "mother country." Nations, moreover, have their "prime," their "decline," their "diseases" and "death," and it is only a few months since the term "dying nations," spoken by a leading statesman, was accepted by the world as aptly describing the condition of some of the oldest races of the world.

An extremely interesting study of one phase of this subject is afforded by a lecture recently delivered in Philadelphia before the Society of Ethical Research by Dr. Daniel G. Brinton, of the University of Pennsylvania, in which it was shown that one of the most striking evidences of what might be called the organic life of nations was the fact that, like the individual, they are subject to specific diseases, which undermine their strength, sap their vitality, and, in time, if not restrained, bring on senility, decay, and even death itself.

Some fifty years ago a French officer, after careful study of

history, determined that the natural term of life of a nation was between 800 and 1,000 years. Dr. Brinton, however, entertains the belief that a nation, if it is thoroughly conscious of what it is doing, and is not crushed by some of those deadly blows which seem to be of fate, may so guard against national diseases as to insure to itself a life indefinitely prolonged.

A nation is defined as being diseased "when, as a unit, it is chronically incapable of directing its activities toward self-preservation." National diseases are not necessarily of the majority of the nation. In the human system one organ may fail us and precipitate an untimely death; so in nations. A degenerate aristocracy, a dissolute priesthood, or a corrupt government, has led to the undoing of a nation, the majority of whom have been free from national disease. The diseases that destroy nations are not so much of the individual, but of the national life.

National diseases may be classified under four heads: 1, imperfect nutrition; 2, poisons; 3, mental shock; and 4, sexual subversion. Some physicians trace all diseases in the human body indirectly to insufficient or misdirected nutrition in one of the organs of the body. The historian Buckle said that "the history of every nation could be traced by the food it was accustomed to eat." The expression was too sweeping, yet it was based upon truth. "Every nation must have, throughout all the nation, enough to eat, of good quality, and properly prepared; or that nation will degenerate."

There is scarcely a nation in Europe which produces enough food for its own consumption. They all know that the foundation of disease—starvation—will be their most terrible enemy in a time of general warfare, and this consideration helps to bind them to an unwilling peace. Starvation or insufficient or improper supply of food brings about degeneration of tissue, inferiority of stature, and general weakening of the body.

The peasantry of Northern Italy present aspects of degeneration, due to their eating the maize (as they frequently do) when it is subjebt to a local blight. The Jews of Europe are two to three inches underneath the stature of the nations among whom they have lived since the middle ages, the cause being unquestionably the limited and inferior food supply which has been their lot. So with the Lapps of the North and the Bushmen of Australia.

Poison is the name by which Dr. Brinton specifies the second class of diseases. Among these he includes and gives first mention to alcohol and tobacco. While they may be harmless if used in moderation, the using of them, as it is now customary in most nations—and those nations often the most civilized—brings with it the elements of national degeneration and decay. The lecturer, in making this statement, admitted that he himself used these commodities in moderation, and therefore was able to designate them as poisons without a suspicion of adverse prejudice on his part. "These are poisons which we deliberately and intentionally take into ourselves," but there are other poisons, such as malaria, distinctly influencing national power, which up to the present time medical science has not been able to meet. There are vast areas of the earth afflicted with malaria, where, as far as we can at present see, it will be impossible for any nation to survive and prosper. There are, moreover, certain infectious diseases, such as leprosy, which, while they are purely physical diseases, are national in their character. They influence the history of the nation, destroy its power and shorten its life.

The third form of disease is that peculiar physical effect which medical men call "shock." Surgical operations which, under ordinary conditions, should be successful sometimes imperil if they do not destroy life, because certain mental temperaments receive what is known as "surgical shock." Something answering very closely to this is discernible in the history of nations. Under its influence they appear to lose control of their faculties, yield to despair, and suffer a complete collapse. An instance of this is found in the conquest of Mexico by a handful of Spaniards under Cortez, another in the exploits of Pizarro in Peru, in both of which cases the powerful native races seem to have suddenly lost all sense of their own power and resources and suffered a mental collapse that corresponds very closely to the shock known in surgery.

The fourth element of disease is sexual subversion, which Dr. Brinton regards as "probably the most insidious, prolonged and dangerous of all the causes of national disease." Under this head he specifies the failure of population to increase, owing to the fact that marriage either does not take place, or is for various reasons infertile. Statistics prove that if the population is

to grow independently of immigration, there should be an average increase of four children to each family, even if all members of the population should marry. This is necessary to compensate for the natural losses; for infant mortality carries off one-fourth of the population, while the early death of the parents or unfruitful marriages serve to prevent the increase of population and reduce the average number of births per family below the number necessary to merely keep the population at a constant number.

In addition to these, the principal causes of national disease, are various diseases that affect the mind of the nation, such as imbecility, seen in many lower tribes like the native Australians. Incapable of following out a logical argument, they cannot understand civilization, and die out when they come in contact with it. Criminality, which is defined as a disposition in any man to destroy the social fabric around him for selfish aims, is a disease which has sapped the life of nations; and national delusions is another. The crusades were an illustration of what might be called epidemic hysteria, and in what is called Jingoism, or by the French Chauvinism, we see evidence of an inordinate mental exaltation which leads to a national disease of the emotions that may prove to-day, as it often has in the past, very fatal.—*Scientific American.*

PNEUMONIA AS A COMPLICATION OF TYPHOID FEVER.—Pneumonia occurs as a complication of typhoid fever in about 7 per cent. of all cases, and evidence of its presence is found in about the same proportion of fatal cases. It is less prevalent now than it was twenty-five or fifty years ago, and this in spite of the fact that pneumonia, as an independent affection, is more prevalent than formerly. The diminished frequency of this complication is probably due to the change of type which has occurred in typhoid fever. I refer more particularly to the nervous symptoms. The profound insensibility which allowed irritation of the cornea to pass without palpebral reflex; which allowed secretions and food particles to accumulate in the mouth and pharynx without notice; which allowed bronchial secretions to form and be retained without cough, as was common in the

typhoid fever of a quarter of a century ago, but is now infrequent. To be sure the nervous system continues to bear the brunt of the disease and the dreamy, placid mental state and diminution of reflex sensibillty are some of the peculiar effects of the typhoid toxines.

For onr present purpose we will reaffirm that the specific cause of pneumonia is the diplococcus pneumoniæ. In this connection three other facts must be given due consideration: (1) that the pneumococcus, or a bacterium which with our present knowledge is indistinguishable from it, is generally present in the mouth and upper air-passages; (2) that bronchitis is usually an early symptom, rather than a complication, of typhoid fever; and (3) that if pneumonia occurs as a complication it does so most frequently during the second or third week week. Now, the probabilities are that the pneumonia of typhoid fever is the result of the aspiration of pneumococcus-laden secretions from the mouth or upper air-passages into the finer bronchi and air-cells, where the potential germ finds, as a result of the preceding bronchitis, a soil suitable for its development, and tissues peculiarly open to attack.

With this conception of the case, and ignoring numerous contributory ætiological factors, and passing by many interesting and important features, we are prepared to consider, somewhat dogmatically, the question of prophylaxis.

The typhoid patient should have a sick chamber of moderate or large size, well ventilated, free from dust and drafts and comfortably warmed. The necessary appliances should be at hand and the nursing should be of the best. A cleansing nose, mouth and throat wash which is acid and antiseptic, but non-irritating, should be used, in an efficient manner, sufficiently often to keep these surfaces clean. For this purpose I employ peroxide of hydrogen ("hydrozone"), two parts, glycerine one part, water twelve parts. This is prepared freshly as required for use. With this solution tbe nose is thoroughly sprayed from three to six times in the twenty-four hours and the throat gargled and mouth cleansed each time after taking food, If this causes irritation it may be followed by listerine, glycerin and water in the same proportions. Inasmuch as the pneumococcus will not grow in acid media, I also direct that the air of the chamber be

charged with volatile acids, e. g., acetic acid, and that, at intervals, the patient inhale the fumes more directly.

In order that the reflex nervous sensibility may be maintained at the highest possible level, the elimination of toxines is facilitated, and strychnia, in moderate or large doses, is given throughout the attack. These measures are undertaken to stimulate respiration and promote the extrusion of bronchial secretions. Drainage is facilitated by raising the foot of the bed.

As to cold baths in typhoid fever and their relation to pneumonia: Numerous instances are recorded wherein pneumonia has so quickly and directly followed their use that the conclusion is irresistible that the connection is one of cause and effect. Whether pneumonia follows oftener in cases treated by the Brand method than in those treated otherwise I am not prepared to say. However, in all but very exceptional cases, the excessive febrile temperature may be reduced by hot or tepid sponging, the external application of guaiacol, combined with the ice cap, or by the administration of acetanalid, so readily, so conveniently, so accurately and so certainly, without perturbation or danger to the patient, that I have found no occasion to depart from their use and as yet have had no cause to regret my course.

If, despite our prophylactic measures, pneumonia should develop, the fact should be early recognized and certain special measures instituted, in order that the added danger may be reduced to a minimum. Frequent and systematic examinations of the lungs should be made, in order that the extent and character of the local process may be known; of the urine, in order that the integrity of the kidneys as excretory organs may be gauged; of the blood, heart, skin and general condition, in order that information may be had as to the character and extent of the toxines accumulated and their effects upon the central nervous system, the muscles of the heart and the blood. With the advent of pneumonia there is added to the blood and the tissues of the body toxines whose effects are markedly different from those due to a pure typhoid infection. The dreamy, placid mental hebetude gives way to a disturbed or actively delirious condition; disinclination to muscular exertion is replaced by restlessness and, later, by profound prostration; the hæmic changes are no longer languidly deleterious, but are actively destructive.

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The method of procedure is of importance: A solution of chloride of sodium in distilled water of a strength of ¾ to 1 per cent. is injected subcutaneously, in doses of four to eight ounces, every one-half to two hours until the desired effect has been attained. The injection is made with a large needle, preferably by gravity, into the subcutaneous tissues of the chest. The ordinary precautions of antisepsis, sterilizing and warming the solution are taken. Venesection, to the extent of from four to sixteen ounces of blood, is employed about a half hour after the first injection. The extent of the bleeding, its repetition or its omission must be a matter of judgment in each case.

If this method is followed, as detailed, it is quite free from any dangers. I have employed it in a number of cases and have [illegible] undesirable manifestations; no chill; no rapid rise or

profound fall of temperature; no restlessness or excitement; no collapse. On the contrary, there have usually followed a gentle or profuse, but warm, perspiration; a free action of the kidneys; a cleaning of the intellect and abatement of cerebral excitement; a lessening of dyspnœa; an improvement of the circulation. Such has been my experience when these measures have been resorted to in the early stages of the late toxæmia of pneumonia, but if they have been delayed until the evidences of profound intoxication are manifest—paretic capillaries, etc.—the effects have been negative. In the one case the results of treatment have been fairly satisfactory and a few of the patients have recovered; in the other the patients have, under this, as under every plan of management with which I am acquainted, uniformly died.—*Edward F. Wells, M.D., in North American Practitioner.*

THE SURGICAL TREATMENT OF PERICARDITIS,—Dr. Brentano has made a study of the cases of pericarditis in the surgical department of the City Hospital at Urban in Berlin, under the directorship of Dr. Korte. He believes (*Deutsche med. Wochenschrift*, No. 82, 1898) that operative interference is indicated only in exudative pericarditis, and here only when the life of the patient is threatened, or a purulent inflammation is suspected. He classifies the methods of operation as follows: (1) Puncture; (2) incision through an intercostal space; (3) incision preceded by resection of a rib. There is no point at which a puncture can be made with positive safety to the heart. As regards the position of the heart in pericarditis with effusion, experience in the Urban City Hospital has shown that in a pericardial sac filled with fluid the heart assumes a position against the anterior chest wall unless held in some other position by adhesions. The coronary arteries are therefore in danger of being injured during puncture, but much more frequently the pleura is threatened, in fact, in the majority of cases pericardial parancentesis is made through the healthy pleura. This, under certain conditions, may lead to pleural effusion. Moreover, a pericardial exudate can rarely be entirely removed through a single puncture. Dr. Brentano has therefore totally discarded

this procedure, as well as the operation by simple incision, because in the latter the internal mammary artery and the pleura are apt to be injured, it is difficult to obtain a clear view of the deeper structures, and adhesions cannot be adequately surveyed. On the other hand, the opening of the pericardial sac after resection of a rib is such a simple operation that it may often be attempted without narcosis and carried to completion under local anesthesia alone. The fifth left costal cartilage is the proper one to be resected, and after being stripped of its intercostal muscles should be separated close to the sternum and at its junction with the rib. The mammary vessels crossing the body of the triangularis sterni muscle are to be doubly ligated and divided. The fibres of the muscles are then separated by blunt dissection, the overlapping pleura is retracted, and an incision made in the whitish, glistening, pericardial membrane. The fluid escapes in spurts, because the heart shows a tendency to close the opening. In purulent exudation, irrigation with sterilized water is recommended. The incised edges of the pericardium should be sutured to the skin incision, and the cavity drained by strips of iodoform gauze. In purulent cases the sac is irrigated daily with sterilized water. According to Dr. Brentano, in cases operated upon by this radical method intrapericardial adhesions are less apt to occur. In the five cases thus operated upon, only one recovered, but the others were markedly relieved by the operation, and death resulted from the causative disease and not from pericarditis. Pericardiotomy with resection of the fifth rib in two cases of purulent pericarditis, due to osteomyletis, did not prevent a lethal termination.—*Med. Record*,

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INTRAVENOUS INJECTIONS OF NORMAL SALINE SOLUTION.—Horace Tracy Hanks (Amer. Gyn. and Obs. Journ., September, 1898), as a preventive to shock, instructs his patients to have every hour, for six hours before the operation, from one to three teaspoonfuls of whisky in one ounce of hot water, and two hours before the operation he passes into the rectum, high above the brim if possible, from one to two ounces of whisky in four ounces of normal saline solution. Patients thus prepared come to the table with a good pulse and a flushed face. They recover

more quickly from ether narcosis, and return to consciousness more promptly, and are not so thirsty and restless.

He uses regular and systematic intravenous injections for loss of blood from any cause, as, for instance, severe traumatism, for the early stage of sepsis, for suppression of urine and obstruction of the bowels from paralysis. One to three pints is usually sufficient, and the temperature is not less than 105° F. The pulse tension is a good indication when to stop. It may be repeated in from four to twelve hours if occasion demands. If a chill follow, too cold fluid has been used. A hypodermic of morphia invariably relieves this.

How this simple saline solution acts is not certain. That the cardiac and arterial ganglia are stimulated is certain, as evidenced by the flushed appearance of the capillaries under the cuticle. The heart, besides, has something to contract upon and the flushing out of the smallest blood vessels follows.

The common every-day formnla, which is easy to remember, is a teaspoonful of table salt to a pint of water, the whole to be boiled for half an hour and filtered through several thicknesses of a sterilized towel, and kept in a close bottle well corked with cotton, and this cotton properly protected with clean gauze.

Before beginning any operation, which may possibly require transfusion, a two quart bottle is filled with this solution and kept hot with hot towels or water around it. A rubber bag, rubber tubing, and a probe-pointed hollow needle, with eye on the side near the end, are used, and the slit in the vein is only made large enough to admit the probe-pointed needle. These he always carries in the bottom of his instrument bag to every operation so as to have them at hand in any emergency. He advises the saline injection even before operation in patients with a very feeble pulse or in septicemia, especially when an operation is decided upon.

[This method is so little better than subcutaneous injection, or injection by enema, and is at the same time accompanied by such grave dangers that it is not likely to come into general use.—ED.]—*Canadian Practitioner and Review.*

SURGICAL HINTS.—Never allow a room to be swept or dusted just before an operation. Cover everything with wet sheets, if necessary, so as to prevent the raising of dust.

When you have blood upon your hands, first wash them in pure water. Using soap at first is a mistake, as soapy water does not dissolve blood rapidly. Clear water and a nail brush should come first, soap next.

In all amputations, remember that the loose muscles retract more than those which are attached to the bone. Hence it is better to sever the loose muscles first, and the attached ones next, so that the ends may be of equal length.

If you believe that your operation has been a clean one, leave the wound alone, if not an infected one. The best surgeons usually apply but one dressing, the first. When this is removed the stitches are taken out, and the wound only needs a clean covering for a few days.

Before giving ether to patients suffering from catarrh of the nasal passages, wash these out with an alkaline solution. This will, by cleaning out the secretions, allow much easier breathing, and hence increase the facility with which anæsthesia can be induced.

Scalp wounds should always be stitched, if of any size. But always remove the stitches very early; otherwise they may act as setons, and lead to suppuration which, if it reaches the loose layer under the aponeurosis, is likely to be serious. These wounds only gape if the scalp muscle or its aponeurosis is incised, and very few stitches are needed.

In cases of felon, find out as soon as possible whether the bone is attacked. Should the terminal phalanx become loose, amputation will nearly always give the most useful finger, especially to workmen. The amputation, however, is best delayed until the septic process is overcome, or else the flaps will probably die, and the time needed for healing by granulation will be greater than that taken up in previous antiseptic treatment.

In bad cases of frost-bite of the hands or feet, do not be in a hurry to amputate. Rest in bed and the most careful asepsis will often allow you to save fingers and toes that would be sacrificed otherwise. The asepsis must be thorough; shreds of necrosing tissue must be duly removed, and the patient's strength be upheld by careful nutrition. Under such conditions, if gangrene becomes established, it is usually found that

the line of demarcation is much farther towards the extremity than was anticipated.—*International Journal of Surgery.*

RECOVERY AFTER WOUND OF THE HEART.—According to the *Lancet* (Sept. 18, 1898), Dr. Paravecchio has described a case of punctured wound of the heart on which he had operated successfully. On the night of July 7 a man, 20 years of age, was stabbed in the fifth intercostal space on the left side, in the parasternal line (the vertical line midway between the border of the sternum and the nipple), with a knife. He afterward walked a distance of more than 200 meters (218 yards) to the Hospital of San Giacomo. Five hours later he was found to be suffering from pneumothorax on the left side, with extensive effusion of blood into the pleura. The area of cardiac dulness was increased; at the apex the heart sounds were confused, and at the base they seemed to be distant. The pulse was irregular, intermittent and small. Paravecchio suspected a wound of the heart, or at least a wound of the pericardium, but was not able to operate until eight hours after the injury. Chloroform having been given, a free incision was made in the fifth intercosta space, and much blood escaped on opening the pleura. After resection of the fifth rib, a wound admitting two fingers was discovered in the pericardium and was enlarged so as to expose the heart, in which there was near the apex a V-shaped wound, 3.5 centimetres (1½ inches) long, penetrating obliquely into the left ventricle and intermittently discharging blood. It was closed with four deeply-applied separate silk sutures, after which there was no further hemorrhage. The pericardium and the intercostal wound were then sutured, the whole operation lasting forty minutes. The V-shape of the wound in the heart was probably due to its movement during the infliction of the wound. The patient's survival for the eight hours preceding the operation may be explained by occlusion of the wound by clot, which was displaced during the struggling occasioned by the chloroform. The subsequent history of the case was quite uneventful, and on August 14 the patient insisted on leaving the hospital. It is added that this is the third case in which suture of a wound of the heart has been followed by recovery.—*Journal of American Medical Association.*

VAGINAL EXAMINATION AND VAGINAL DOUCHES IN NORMAL LABOR.—The following conclusions are offered by G. P. Shears (Medical Record, September 17, 1898): The common custom of making frequent vaginal examinations during the whole course of labor is unscientific and unsafe, and it should be the aim of the conscientious obstetrican so to familiarize himself with all extra-vaginal methods of diagnosis as to reduce the necessity for vaginal examinations to the minimum. All intra-vaginal manipulations are especially objectionable after delivery. When the vaginal secretions are normal antepartum douches are unnecessary and harmful. Upon this point the researches of Leopold and Goldberg, as well as those of Fischel and others, seem to be conclusive. In normal cases the single postpartum douche is unnecessary, and therefore objectionable. The routine use of douches during the normal puerperium is contradicted. Lusk says: "I hospital practice they have invariably increased the morbidity and the mortality rate. It is, of course, to be understood that these conclusions apply only to normal cases, and in no way forbid the most searching examination or thorough disinfection when indicated. Should a douche be necessary, then only a glass tube, perforated at the sides, should be used. The solution should be as hot as as can be comfortably borne, but should not be too hot. As sometimes given, it causes unnecessary pain, and may even, by constricting, if not actually cauterizing the superficial vessels, interfere w th drainage, retard the necessary postpartum changes, and thus actually aid in producing sepsis. The tube should be managed without introducing the fingers. To distend the ostium vaginæ and carefully search for clots is to invite sepsis. Whether the air of the lying-in room may carry the germs of puerperal infection is still, perhaps, *sub judice*, but there can be no doubt that freely to admit air to the vagina after delivery is the surest way to cause decomposition of coagula, previously harmless."—*University Medical Magazine.*

APOMORPHINE IN ACUTE ALCOHOLIC DELIRIUM.—The articles on apomorphine in recent issues of the *Medical Record* have been read with interest by me. It is somewhat surprising, however, that none of the gentlemen who so admirably brought

forth the merits of this valuable drug should have mentioned its usefulness in acute alcoholic delirium. Here we have rigidity of the muscles, convulsions, a full bounding pulse, and usually a stomach filled with an irritant—just the condition to be counteracted by the physiological effects of apomorphine.

For this form of alcoholism it gets in its work in minutes, whereas it takes hours for bromides, chloral, and the like to have the same effect. It is a drug far superior to morphine in this condition, for, while morphine dries up the secretions, apomorphine eliminates the poison.

A case in point: Some weeks ago I was called about midnight to see a man said to be in convulsions. Upon entering the room I beheld a man on the floor with five others holding him down. His face was flushed, pulse bounding, and every few minutes there occurred a violent tonic convulsion. He was well known known to me as an habitual drinker, and a strong odor of alcohol pervaded the room. I at once injected hypodermically one-tenth grain apomorphine hydrochlorate. In four minutes free emesis followed, rigidity gave way to relaxation, excitement to somnolence, and without further medication the patient, who before had been wild and delirious, went off into a quiet sleep.

This case is similar to a number of others treated in a like manner and with like good results. While it acts admirably in these cases, its use is generally contraindicated in genuine cases of delirium tremens, in which we usually have a weak heart.—*J. Edward Tompkins, M.D., in Med. Record.*

THE LOCAL APPLICATION OF GUAIACOL IN PLEURAL EFFUSION.—Prosorowski (Deutsche Medizinal Zeitung, March 31, 1898) has treated eleven cases of pleural effusion by the local application of guaiacol to the skin of the affected side, and found the absorption was effected more promptly in this way than by the older methods of treatment. No untoward effects were observed. The applications were usually made from five to seven times. After the application the temperature fell from one-half to five degrees Fahrenheit, but within two hours it rose again to its original height, or even higher. Two theories are suggested to account for the action of guaiacol. (1) Stimulation of the nerve-endings produces an effect upon the vasomotor centres, and thus indirectly increases the absorptive power of the pleura;

typhoid fever of a quarter of a century ago, but is now infrequent. To be sure the nervous system continues to bear the brunt of the disease and the dreamy, placid mental state and diminution of reflex sensibility are some of the peculiar effects of the typhoid toxines.

For our present purpose we will reaffirm that the specific cause of pneumonia is the diplococcus pneumoniæ. In this connection three other facts must be given due consideration: (1) that the pneumococcus, or a bacterium which with our present knowledge is indistinguishable from it, is generally present in the mouth and upper air-passages; (2) that bronchitis is usually an early symptom, rather than a complication, of typhoid fever; and (3) that if pneumonia occurs as a complication it does so most frequently during the second or third week week. Now, the probabilities are that the pneumonia of typhoid fever is the result of the aspiration of pneumococcus-laden secretions from the mouth or upper air-passages into the finer bronchi and air-cells, where the potential germ finds, as a result of the preceding bronchitis, a soil suitable for its development, and tissues peculiarly open to attack.

With this conception of the case, and ignoring numerous contributory ætiological factors, and passing by many interesting and important features, we are prepared to consider, somewhat dogmatically, the question of prophylaxis.

The typhoid patient should have a sick chamber of moderate or large size, well ventilated, free from dust and drafts and comfortably warmed. The necessary appliances should be at hand and the nursing should be of the best. A cleansing nose, mouth and throat wash which is acid and antiseptic, but non-irritating, should be used, in an efficient manner, sufficiently often to keep these surfaces clean. For this purpose I employ peroxide of hydrogen ("hydrozone"), two parts, glycerine one part, water twelve parts. This is prepared freshly as required for use. With this solution the nose is thoroughly sprayed from three to six times in the twenty-four hours and the throat gargled and mouth cleansed each time after taking food, If this causes irritation it may be followed by listerine, glycerin and water in the same proportions. Inasmuch as the pneumococcus will not grow in acid media, I also direct that the air of the chamber be

charged with volatile acids, e. g., acetic acid, and that, at intervals, the patient inhale the fumes more directly.

In order that the reflex nervous sensibility may be maintained at the highest possible level, the elimination of toxines is facilitated, and strychnia, in moderate or large doses, is given throughout the attack. These measures are undertaken to stimulate respiration and promote the extrusion of bronchial secretions. Drainage is facilitated by raising the foot of the bed.

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If, despite our prophylactic measures, pneumonia should develop, the fact should be early recognized and certain special measures instituted, in order that the added danger may be reduced to a minimum. Frequent and systematic examinations of the lungs should be made, in order that the extent and character of the local process may be known; of the urine, in order that the integrity of the kidneys as excretory organs may be gauged; of the blood, heart, skin and general condition, in order that information may be had as to the character and extent of the toxines accumulated and their effects upon the central nervous system, the muscles of the heart and the blood. With the advent of pneumonia there is added to the blood and the tissues of the body toxines whose effects are markedly different from those due to a pure typhoid infection. The dreamy, placid mental hebetude gives way to a disturbed or actively delirious condition; disinclination to muscular exertion is replaced by restlessness and, later, by profound prostration; the hæmic changes are no longer languidly deleterious, but are actively destructive.

In the milder cases ordinary methods of treatment, including the bold use of strychnia, are usually successful. In another large class of cases the patient successfully withstands the first onslaughts of the pneumonic disease, but after a very few days shows indubitable signs of profound toxæmia; the pulse gradually increases in frequency while it loses force and tension; the temperature mounts higher and higher; there is sallowness or duskiness of the surface; there is restlessness and delirum. Under these circumstances three reasonable procedures are open to us. Previous to the development of this state inhalations of warmed oxygen should have been begun and this should be continued. Simple dermoclysis should be had recourse to early and repeated as required. If this procedure is followed by free perspiration, diuresis or catharsis, the toxines may be washed out of the blood and the patient recover. If, however, these results do not follow, dermoclysis must be supplemented by venesection.

In these cases bleeding alone is not sufficient. If blood is simply abstracted from the general circulation the serum is quickly replaced by the absorption of fluids from the soft tissues. These fluids, however, are loaded with toxines, and the bleeding fails in its object as a blood purifier. But if, in addition to the venesection, there be introduced into the circulation equal quantity of bland non-toxic fluid, we not only remove a great quantity of offending material, but we dilute that which remains behind.

The method of procedure is of importance: A solution of chloride of sodium in distilled water of a strength of $\frac{3}{4}$ to 1 per cent. is injected subcutaneously, in doses of four to eight ounces, every one-half to two hours until the desired effect has been attained. The injection is made with a large needle, preferably by gravity, into the subcutaneous tissues of the chest. The ordinary precautions of antisepsis, sterilizing and warming the solution are taken. Venesection, to the extent of from four to sixteen ounces of blood, is employed about a half hour after the first injection. The extent of the bleeding, its repetition or its omission must be a matter of judgment in each case.

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profound fall of temperature; no restlessness or excitement; no collapse. On the contrary, there have usually followed a gentle or profuse, but warm, perspiration; a free action of the kidneys; a cleaning of the intellect and abatement of cerebral excitement; a lessening of dyspnœa; an improvement of the circulation. Such has been my experience when these measures have been resorted to in the early stages of the late toxæmia of pneumonia, but if they have been delayed until the evidences of profound intoxication are manifest—paretic capillaries, etc.—the effects have been negative. In the one case the results of treatment have been fairly satisfactory and a few of the patients have recovered; in the other the patients have, under this, as under every plan of management with which I am acquainted, uniformly died.—*Edward F. Wells, M.D., in North American Practitioner.*

THE SURGICAL TREATMENT OF PERICARDITIS,—Dr. Brentano has made a study of the cases of pericarditis in the surgical department of the City Hospital at Urban in Berlin, under the directorship of Dr. Korte. He believes (*Deutsche med. Wochenschrift*, No. 82, 1898) that operative interference is indicated only in exudative pericarditis, and here only when the life of the patient is threatened, or a purulent inflammation is suspected. He classifies the methods of operation as follows: (1) Puncture; (2) incision through an intercostal space; (3) incision preceded by resection of a rib. There is no point at which a puncture can be made with positive safety to the heart. As regards the position of the heart in pericarditis with effusion, experience in the Urban City Hospital has shown that in a pericardial sac filled with fluid the heart assumes a position against the anterior chest wall unless held in some other position by adhesions. The coronary arteries are therefore in danger of being injured during puncture, but much more frequently the pleura is threatened, in fact, in the majority of cases pericardial parancentesis is made through the healthy pleura. This, under certain conditions, may lead to pleural effusion. Moreover, a pericardial exudate can rarely be entirely removed through a single puncture. Dr. Brentano has therefore totally discarded

this procedure, as well as the operation by simple incision, because in the latter the internal mammary artery and the pleura are apt to be injured, it is difficult to obtain a clear view of the deeper structures, and adhesions cannot be adequately surveyed. On the other hand, the opening of the pericardial sac after resection of a rib is such a simple operation that it may often be attempted without narcosis and carried to completion under local anesthesia alone. The fifth left costal cartilage is the proper one to be resected, and after being stripped of its intercostal muscles should be separated close to the sternum and at its junction with the rib. The mammary vessels crossing the body of the triangularis sterni muscle are to be doubly ligated and divided. The fibres of the muscles are then separated by blunt dissection, the overlapping pleura is retracted, and an incision made in the whitish, glistening, pericardial membrane. The fluid escapes in spurts, because the heart shows a tendency to close the opening. In purulent exudation, irrigation with sterilized water is recommended. The incised edges of the pericardium should be sutured to the skin incision, and the cavity drained by strips of iodoform gauze. In purulent cases the sac is irrigated daily with sterilized water. According to Dr. Brentano, in cases operated upon by this radical method intrapericardial adhesions are less apt to occur. In the five cases thus operated upon, only one recovered, but the others were markedly relieved by the operation, and death resulted from the causative disease and not from pericarditis. Pericardiotomy with resection of the fifth rib in two cases of purulent pericarditis, due to osteomyletis, did not prevent a lethal termination.—*Med. Record*,

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INTRAVENOUS INJECTIONS OF NORMAL SALINE SOLUTION.—Horace Tracy Hanks (Amer. Gyn. and Obs. Journ., September, 1898), as a preventive to shock, instructs his patients to have every hour, for six hours before the operation, from one to three teaspoonfuls of whisky in one ounce of hot water, and two hours before the operation he passes into the rectum, high above the brim if possible, from one to two ounces of whisky in four ounces of normal saline solution. Patients thus prepared come to the table with a good pulse and a flushed face. They recover

more quickly from ether narcosis, and return to consciousness more promptly, and are not so thirsty and restless.

He uses regular and systematic intravenous injections for loss of blood from any cause, as, for instance, severe traumatism, for the early stage of sepsis, for suppression of urine and obstruction of the bowels from paralysis. One to three pints is usually sufficient, and the temperature is not less than 105° F. The pulse tension is a good indication when to stop. It may be repeated in from four to twelve hours if occasion demands. If a chill follow, too cold fluid has been used. A hypodermic of morphia invariably relieves this.

How this simple saline solution acts is not certain. That the cardiac and arterial ganglia are stimulated is certain, as evidenced by the flushed appearance of the capillaries under the cuticle. The heart, besides, has something to contract upon and the flushing out of the smallest blood vessels follows.

The common every-day formula, which is easy to remember, is a teaspoonful of table salt to a pint of water, the whole to be boiled for half an hour and filtered through several thicknesses of a sterilized towel, and kept in a close bottle well corked with cotton, and this cotton properly protected with clean gauze.

Before beginning any operation, which may possibly require transfusion, a two quart bottle is filled with this solution and kept hot with hot towels or water around it. A rubber bag, rubber tubing, and a probe-pointed hollow needle, with eye on the side near the end, are used, and the slit in the vein is only made large enough to admit the probe-pointed needle. These he always carries in the bottom of his instrument bag to every operation so as to have them at hand in any emergency. He advises the saline injection even before operation in patients with a very feeble pulse or in septicemia, especially when an operation is decided upon.

[This method is so little better than subcutaneous injection, or injection by enema, and is at the same time accompanied by such grave dangers that it is not likely to come into general use.—ED.]—*Canadian Practitioner and Review.*

SURGICAL HINTS.—Never allow a room to be swept or dusted just before an operation. Cover everything with wet sheets, if necessary, so as to prevent the raising of dust.

When you have blood upon your hands, first wash them in pure water. Using soap at first is a mistake, as soapy water does not dissolve blood rapidly. Clear water and a nail brush should come first, soap next.

In all amputations, remember that the loose muscles retract more than those which are attached to the bone. Hence it is hetter to sever the loose muscles first, and the attached ones next, so that the ends may be of equal length.

If you believe that your operation has been a clean one, leave the wound alone, if not an infected one. The best surgeons usually apply but one dressing, the first. When this is removed the stitches are taken out, and the wound only needs a clean covering for a few days.

Before giving ether to patients suffering from catarrh of the nasal passages, wash these out with an alkaline solution. This will, by cleaning out the secretions, allow much easier breathing, and hence increase the facility with which anæsthesia can be induced.

Scalp wounds should always be stitched, if of any size. But always remove the stitches very early; otherwise they may act as setons, and lead to suppuration which, if it reaches the loose layer under the aponeurosis, is likely to be serious. These wounds only gape if the scalp muscle or its aponeurosis is incised, and very few stitches are needed.

In cases of felon, find out as soon as possible whether the bone is attacked. Should the terminal phalanx become loose, amputation will nearly always give the most useful finger, especially to workmen. The amputation, however, is best delayed until the septic process is overcome, or else the flaps will probably die, and the time needed for healing by granulation will be greater than that taken up in previous antiseptic treatment.

In bad cases of frost-bite of the hands or feet, do not be in a hurry to amputate. Rest in bed and the most careful asepsis will often allow you to save fingers and toes that would be sacrificed otherwise. The asepsis must be thorough; shreds of necrosing tissue must be duly removed, and the patient's strength be upheld by careful nutrition. Under such conditions, if gangrene becomes established, it is usually found that

the line of demarcation is much farther towards the extremity than was anticipated.—*International Journal of Surgery.*

Recovery After Wound of the Heart.—According to the *Lancet* (Sept. 18, 1898), Dr. Paravecchio has described a case of punctured wound of the heart on which he had operated successfully. On the night of July 7 a man, 20 years of age, was stabbed in the fifth intercostal space on the left side, in the parasternal line (the vertical line midway between the border of the sternum and the nipple), with a knife. He afterward walked a distance of more than 200 meters (218 yards) to the Hospital of San Giacomo. Five hours later he was found to be suffering from pneumothorax on the left side, with extensive effusion of blood into the pleura. The area of cardiac dulness was increased; at the apex the heart sounds were confused, and at the base they seemed to be distant. The pulse was irregular, intermittent and small. Paravecchio suspected a wound of the heart, or at least a wound of the pericardium, but was not able to operate until eight hours after the injury. Chloroform having been given, a free incision was made in the fifth intercosta space, and much blood escaped on opening the pleura. After resection of the fifth rib, a wound admitting two fingers was discovered in the pericardium and was enlarged so as to expose the heart, in which there was near the apex a V-shaped wound, 3.5 centimetres (1½ inches) long, penetrating obliquely into the left ventricle and intermittently discharging blood. It was closed with four deeply-applied separate silk sutures, after which there was no further hemorrhage. The pericardium and the intercostal wound were then sutured, the whole operation lasting forty minutes. The V-shape of the wound in the heart was probably due to its movement during the infliction of the wound. The patient's survival for the eight hours preceding the operation may be explained by occlusion of the wound by clot, which was displaced during the struggling occasioned by the chloroform. The subsequent history of the case was quite uneventful, and on August 14 the patient insisted on leaving the hospital. It is added that this is the third case in which suture of a wound of the heart has been followed by recovery.—*Journal of American Medical Association.*

VAGINAL EXAMINATION AND VAGINAL DOUCHES IN NORMAL LABOR.—The following conclusions are offered by G. P. Shears (Medical Record, September 17, 1898): The common custom of making frequent vaginal examinations during the whole course of labor is unscientific and unsafe, and it should be the aim of the conscientious obstetrican so to familiarize himself with all extra-vaginal methods of diagnosis as to reduce the necessity for vaginal examinations to the minimum. All intra-vaginal manipulations are especially objectionable after delivery. When the vaginal secretions are normal antepartum douches are unnecessary and harmful. Upon this point the researches of Leopold and Goldberg, as well as those of Fischel and others, seem to be conclusive. In normal cases the single postpartum douche is unnecessary, and therefore objectionable. The routine use of douches during the normal puerperium is contradicted. Lusk says: "I hospital practice they have invariably increased the morbidity and the mortality rate. It is, of course, to be understood that these conclusions apply only to normal cases, and in no way forbid the most searching examination or thorough disinfection when indicated. Should a douche be necessary, then only a glass tube, perforated at the sides, should be used. The solution should be as hot as as can be comfortably borne, but should not be too hot. As sometimes given, it causes unnecessary pain, and may even, by constricting, if not actually cauterizing the superficial vessels, interfere w th drainage, retard the necessary postpartum changes, and thus actually aid in producing sepsis. The tube should be managed without introducing the fingers. To distend the ostium vaginæ and carefully search for clots is to invite sepsis. Whether the air of the lying-in room may carry the germs of puerperal infection is still, perhaps, *sub judice*, but there can be no doubt that freely to admit air to the vagina after delivery is the surest way to cause decomposition of coagula, previously harmless."—*University Medical Magazine.*

APOMORPHINE IN ACUTE ALCOHOLIC DELIRIUM.—The articles on apomorphine in recent issues of the *Medical Record* have been read with interest by me. It is somewhat surprising, however, that none of the gentlemen who so admirably brought

forth the merits of this valuable drug should have mentioned its usefulness in acute alcoholic delirium. Here we have rigidity of the muscles, convulsions, a full bounding pulse, and usually a stomach filled with an irritant—just the condition to be counteracted by the physiological effects of apomorphine.

For this form of alcoholism it gets in its work in minutes, whereas it takes hours for bromides, chloral, and the like to have the same effect. It is a drug far superior to morphine in this condition, for, while morphine dries up the secretions, apomorphine eliminates the poison.

A case in point: Some weeks ago I was called about midnight to see a man said to be in convulsions. Upon entering the room I beheld a man on the floor with five others holding him down. His face was flushed, pulse bounding, and every few minutes there occurred a violent tonic convulsion. He was well known known to me as an habitual drinker, and a strong odor of alcohol pervaded the room. I at once injected hypodermically one-tenth grain apomorphine hydrochlorate. In four minutes free emesis followed, rigidity gave way to relaxation, excitement to somnolence, and without further medication the patient, who before had been wild and delirious, went off into a quiet sleep.

This case is similar to a number of others treated in a like manner and with like good results. While it acts admirably in these cases, its use is generally contraindicated in genuine cases of delirium tremens, in which we usually have a weak heart.—*J. Edward Tompkins, M.D., in Med. Record.*

THE LOCAL APPLICATION OF GUAIACOL IN PLEURAL EFFUSION.—Prosorowski (Deutsche Medizinal Zeitung, March 31, 1898) has treated eleven cases of pleural effusion by the local application of guaiacol to the skin of the affected side, and found the absorption was effected more promptly in this way than by the older methods of treatment. No untoward effects were observed. The applications were usually made from five to seven times. After the application the temperature fell from one-half to five degrees Fahrenheit, but within two hours it rose again to its original height, or even higher. Two theories are suggested to account for the action of guaiacol. (1) Stimulation of the nerve-endings produces an effect upon the vasomotor centres, and thus indirectly increases the absorptive power of the pleura;

the guaiacol, being absorbed, destroys the noxious agents produced by the pleurisy.—*University Medical Magazine.*

POTASSIUM IODIDE FOR SYPHILIS—NOT SODIUM.—Colombini and Simonelli show that in its action on the blood sodium has distinctly different results from potassium iodide. In the early stages of the syphilitic process sodium iodide would seem to have no effect on the hemoglobin, and it induced a diminution in the number of red blood cells. The authors come to the general conclusions that not under any circumstances is the substitution of sodium iodide to be practiced in the treatment of syphilis, and that it is not the iodine alone in the potassium iodide that gives good results, but also the potassium.—*American Medical-Surgical Bulletin.*

Editorial.

"LA GRIPPE"—INFLUENZA.

Just prior and subsequent to the Christmas holidays almost the entire country has been struggling in the grasp of the miserable monster, "Grippe." While in many instances it has been quite mild; yet it has occasioned no little mortality, not as a direct result, but from the development of fatal sequelæ. Although in many instances it differs but little from what is termed an ordinary cold, yet quite a number of cases in any epidemic show that it is certainly something else. The violent pains in the head, limbs and back, rachialgia, neuralgia, myalgia, and "algias" of any and every part of the body; the extreme degree of prostration, the lassitude, the persistent debility that follows in so many instances, and the tendency so often marked of its fastening its fangs in any part of the body, in any organ or in connection with any function that at the time was impaired to any extent, holding on to the pathologic tissue or viscus with the tenacity of a bulldog, and in quite a number of instances acquiring or developing a lethal tendency, makes it truly a monster of somewhat forbidding mien.

For the past eight years our entire people have been quite familiar with it, and our doctors doubtless have thoroughly considered their library resources with reference to it. So much so that it seems almost a work of supererogation to consider it even in this brief editorial comment. However, during the past few weeks so many epistolary requests have been received, desiring information, specially as regards treatment, and as we were debarred from replying personally to many, by reason of

a "grip" on our own carcass as well as the bodies of many of our friends, who seemed to think that a doctor had no right to be sick and should always visit them when called, regardless of his own physical condition, we hope this will be accepted as the "raison d'etre" of this hastily-written article in reference to *treatment*, which may be summarized as follows:

First, as the secretions are usually more or less arrested, or will be, small doses of calomel, ¼ gr. with ipecac ⅙ gr., sodæ carb. gr. v., every two hours in the afternoon until four doses are taken; quinia sulph. ℈i.: divided into three doses, either chartula or capsules, and one to be given at 6 P. M., one at 11 P. M. and one at 6 A. M., or as near these hours as possible. These measures to be repeated on the following day and night.

If the pains in back and limbs are severe, Tongaline f℥ij every three or four hours until the bowels move freely, then reducing the dose one-half and extending the interval has acted exceedingly well.

If the pain in the head, as in many cases, is the most unpleasant feature, then Antikamnia, or the new preparation, Kryofine, in doses of 7½ grs., repeated at intervals of three or four hours, has been very useful; and if there is insomnia, bromidia has been very effective. If there is much cough, especially dry and worrying, a favorite formula with me has been the following:

℞ Ammonia Mur.....℥ijs—iijs
Syr. Scillæ comp.....f℥ss
Vin Ipecac
Tr. Opii Camph.
Spts. Æth. Nit. aa .....f℥iijs
Syr. Wild Cherry.
Aq. Dist. aa.....f℥js

S.—Teaspoonful every three or four hours when cough is troublesome, but not oftener than every three or four hours.

If high fever prevails and the Antikamnia or Kryofine does not bring it within reasonable range, free sponging the surface with tepid, cool or cold water, with cold cloths or ice cap to the head.

Such has been our method of treatment, which we have found quite effectual in every prevalence since the epidemic of '91. In many cases the quinine and calomel haue been all that was required, and only in severe or distressing cases have we found necessity of resorting to the other remedies.

In Gould's Year-Book of Treatment for 1899, just issued by W. B. Saunders of Philadelphia, we find the following, reference to the authorities being omitted:

"Goliner reports successful results from the use of *phesin* and *cosaprin* as antipyretics in influenza, and states that the headache and other pains were at the same time greatly relieved, and that the drug had no depressing effects. Bresler has used *Kryofine* in influenza, and prefers it to the usual antipyretics, such as antipyrin and phenacetin. It should be given to prevent rise of temperature, rather than to bring it down when it has

risen. The general condition was improved by the use of this drug. One woman showed marked cyanosis after a dose of 15 gr. [Drugs of the the character referred to in the last two abstracts must be used with care, and laudatory notices of their advantages should be received with reservation.*] S. V. Haas and J. B. Morrison conclude, after their use of *Kryofine* in 150 cases, that it is safer than other similar preparations, and, while less rapid in its effects, is a useful analgesic and hypnotic when pain is not severe. They note two cases, however, in which collapse of some gravity followed its administration.

"G. Fredenthal has attempted an abortive treatment of influenza in 32 cases by giving calomel in a dose of 1½ grs., which was repeated. The symptoms were, in his experience, much decreased and nearly relieved in from 6 to 10 hours, and this he believes was due to a change from the mild chloride into the corrosive chloride."

While we are not fully of the opinion that chemical action "*in vitras*" is exactly similar to its action "*in vita*" we are convinced of the efficacy of the calomel, but believe it acts rather by increasing the arrested glandular action than otherwise, although it may have antiseptic or antimicrobic properties. We give it, however, in small doses—no more than 1 gr. per day. The Quinin we believe to be about as effectual here as it is in its action on the bacillus of Laveran—and that it is as much an antidote to the germ of Influenza as that of Malaria.

OBITUARY—DR. NEWTON G. TUCKER.

Dr. Newton G. Tucker was born in Williamson County, this State, March 29, 1836. His parents moved to Marshall County when he was quite a child, where he made his home for fifteen years, at the end of which time they returned to Williamson County. When only 16 years old he secured a position as teacher in the public schools, which he held for three years, and at the age of 20 commenced the study of medicine, graduating in the Medical Department of the University of Nashville in 1861.

Soon after his graduation he was recommended for appointment as Assistant Surgeon in tne army then being organized in the State, but Gov. Harris, knowing him personally, induced him to return to his home, saying that his people needed him there more than in the army.

In 1870 he was elected Mayor of Lewisburg, which position he held until his removal to Nashville three years later. In 1875 he was elected a member of the Nashville City Council, holding the office of President of this body for six years. He was actively engaged in quarantine work on

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*We have used Kryofine in doses of 7½ grs. in many instances lately, without one single bad result. Fifteen grs. we would regard as entirely too much, and even half that quantity should not be too rapidly repeated. —Ed. S. P.

the N. & N. W. R.R. during the yellow fever epidemic of 1878, and did most valuable service. In 1892 he was elected City Health Officer, which position he held for six years. For a number of years he held and adequately filled the Chair of Theory and Practice of Medicine in the Meharry Medical College. He was a member of the North High Street Methodist Church, also of the U. O. G. C., National Union and Royal Arcanum. He was actively engaged in politics, an energetic, loyal and faithful Democrat to the day of his death, frequently and efficiently serving as a convention delegate.

Shortly after receiving his degree of M.D., he married Miss Mary E. Cochran, of Pontotoc, Miss., who, with his children, Drs. R. O. and B. G. Tucker, Mark G. Tucker, and Mrs. W. T. Woodring and Miss Maggie Tucker, are left to mourn his demise.

In his private life Dr. Tucker was generous, honest, a kind father and a valuable citizen. No one was ever turned away from him, whether it was professional services wanted by poor people or a loan by the impecunious. He had done much for the section of the city in which he lived and with which he was thoroughly identified for nearly twenty-five years. Many of the municipal advantages enjoyed by that section were first obtained through the work of Dr. Tucker. Thousands of those whom he has helped will learn of their benefactor's death with the deepest sorrow.

He was my classmate, entering the junior class the year I completed my course, and I have known him long and well. Of the strictest integrity, a man of sterling qualities, loyal to his friends and never vindictive or unjustly resentful to the very few who were inimical to him, his kindly and cordial greeting, the warm grasp of his hand will be sadly missed.

Faithful to his duty until driven to his last bed by an illness which even his resolute will could not withstand, Dr. N. G. Tucker, well known and beloved by all who knew him, passed away shortly after 8 o'clock Sunday night, January 8th, at his home 1220 North Vine street. In his last hours he was surrounded by his entire family, who alleviated with loving hands the suffering of his final moments. For several months past Dr. Tucker had been acting as Superintendent of the City Hospital, in the absence of the Superintendent elect who was ill, and it was while engaged in discharging the duties of this office that he over-exerted his constitution, already weakened by age. During the Christmas holidays the work was especially arduous. Dr. Tucker being called up night and day. On Christmas day there were six major operations at the hospital, breaking the record for any day in the history of the institution. On the Tuesday following Christmas day, which came on Sunday, Dr. Tucker was forced to go to bed and grew gradually worse until the end came.

While the end was not unexpected on the morning of the 8th, Dr. Tucker seemed much better and there were hopes that he could withstand for a few days longer the forces which were sapping his life away. But

late in the afternoon he grew rapidly worse, and it became evident to the watchers that death's hand was upon the sufferer. In the early evening he passed peacefully away, firm in faith of another life beyond the grave.

The Nashville City Board of Health and all the attaches of that Department held a meeting at which suitable resolutions were adopted. The City Council was convened in called session by the Mayor, and after the adoption of appropriate resolutions, it was resolved that the members of the City Council and other officials of the city attend the funeral in a body.

At a meeting of the physicians of Nashville held at the Nashville Academy of Medicine at 7:30 o'clock, January 9th, 1899, to take action commemorative of the life and death of Dr. N. G. Tucker, Dr. L. B. Graddy was called to the chair, and Dr. Perry Bromberg was appointed Secretary. The chairman explained the object of the meeting and in glowing and eloquent words, paid a high tribute to the profound worth and standing of the deceased.

Drs. W. D. Haggard. Sr., W. A. Atchison, James B. Stephens, and Perry Bromberg, followed with speeches eulogistic of the deceased friend and brother. On motion of Dr. Haggard the chair appointed a committee of three to adopt resolutions expressive of the loss sustained by the demise of Dr. Tucker. The committee presented the following resolutions which were adopted:

Resolved 1st, That in the death of Dr. Tucker, his family, the public and the profession have sustained a great and irreparable loss.

Resolvvd 2nd, That the profession of Nashville extend to the family of the deceased their heart-felt sympathy and condolence in this great affliction.

Resolved 3rd, That by death Dr. Tucker, a member of the profession of which he was an honored and esteemed devotee, has been removed from our midst and has passed the ordeal which we must all sooner or later meet.

Resolved 4th, That in his death, a brother who prided himself on his strict and high ethical character which the profession universally accorded to him will be greatly missed and mourned by the profession wherever he was known.

Resolved, 5th, That a copy of these resolutiens be furnished the three Medical Journals of Nashville for publication, and a copy transmitted to the family of our lamented brother and friend.

W. D. HAGGARD,
JAMES B. STEPHENS,
PERRY BROMBERG.

OBITUARY—DR. JOHN B. HAMILTON.

Dr. John B. Hamilton, of Chicago, editor of the *Journrl American*

Medical Association, died Saturday evening, December 24, 1898, from an attack of typhoid fever, with perforation of the intestine. He had been ill for a short time only, and at first it was thought he would survive the operation, which was done on Thursday. His remains were taken to Washington, D. C., for interment.

He was born in Jersey County, Illinois, on the 1st of December, 1847; received his early intellectual training at the Hamilton School, and later pursued a classical course under Professor John Grant, a noted Latin scholar from Edinburgh University. In 1863 he entered the office of his uncle, Dr. Joseph O. Hamilton. In 1864 he enlisted at Jacksonville, Morgan County, Illinois, as a private in Company G, Sixty-first Illinois Infantry, the regiment of which his father was Chaplain, then stationed at Little Rock, Arkansas. After a brief military career he removed to Chicago and entered Rush Medical College, from which he was graduated February, 1869. From that date until 1874 he engaged in general practice. In 1874 he was appointed Assistant Surgeon and First Lieutenant of the U. S. Army, serving at St. Louis Barracks and in the Department of the Columbia, at Fort Colville, Washington. Resigning his commission in 1876, Dr. Hamilton became an applicant for a position in the United States Marine Hospital Service. As the reresult of a competitive examination,he secured the position of Assistant Surgeon, with headquarters at New York. From this point, in May, 1877. he was ordered to Boston, and during the succeeding month was promoted to be the Surgeon.

General John M. Woodworth, Supervising Surgeon-General of the U. S. Marine Hospital Service, died in March, 1879, and Dr. Hamilton was placed in temporary command of the Bureau, and in April following was promoted to the vacancy. He immediately began the reorganization of the service, managing campaigns against two epidemics of yellow fever during the term of service, and succeeded in having placed on the statute books the National Quarantine Acts. In 1883 his sanitary cordon stretched from Laredo on the Texas frontier to the mouth of the Rio Grande, and another was placed at the Pensacola Navy Yard, on account of a local epidemic at that point. In 1888 he established Camp Perry, on St. Mary's river, Florida, this being the first station known to sanitary science which had been organized for the transmission of yellow fever refugees. After being thoroughly disinfected, they were passed through to their destinations. In no case was there a reappearance of the disease.

The year 1890 was one of especial honor to Dr. Hamilton, his annual report submitted to the Treasury Department giving some idea of the broad scope of his activities. The report embraced la grippe in its ravages from Russia to and into the United States; cholera in Asia and Europe; smallpox in Mexico, and leprosy in Cuba. In view of his services in preventing the introduction of yellow fever to the United States, he

was called upon by the American Public Health Association to make efforts to bar out leprosy in Cuba. In March, 1890, the Inter-State Quarantine Law was drawn by him and passed. This report also contained a communication to the then Secretary of State, the late James G. Blaine, on the sanitation of ships and quarantine, and a report of the immigration service. It further embraced an elaborate and finely illustrated account of Dr. Hamilton's visit to the chief hospitals of Europe, made under Government instructions, upon the occasion of his trip to Berlin as a United States delegate to the International Medical Congress. He served as Secretary-General of the Ninth International Medical Congress, held at Washington in 1897.

In June, 1891, after his return from Europe, he resigned his position and once more entered the ranks of medical officers as a surgeon. In June, 1892, he was temporarily ordered to New York, where he established the first camp in the United States for cholera suspects. Several vessels, notably the Normania of the Hamburg-American Line, were already quarantined in New York harbor, having on board large number of passengers who had been exposed to the infection, more than 10,000 being booked for passage from European ports or already on their way:

Dr. Hamilton assumed his position as surgeon in charge of the U. S. Marine Hospital Service, located in Chicago, June, 1891.

While a resident of Washington he was elected Professor of Surgery in the University of Georgetown, from which institution, in 1889, he received the degree of L.L.D. He was also surgeon to the Providence Hospital, Washington, and, upon his resignation as Surgeon-General in 1891, and his return to Chicago, became Professor of the Principles of Surgery and Clinical Surgery in Rush Medical College. He was also chosen Professor of Surgery in the Chicago Polyclinic, and Surgeon to the Presbyterian Hospital. He was a member of the local medical societies and of the State Medical Society. At the time of his death he held the position of Superintendent of the State Insane Asylum at Elgin, was editor of the *Journal American Medical Association*, and President of the Board of Directors of the Chicago Public Library.

His contributions to general medical literature have been numerous. He was a good diagnostician, and a skilful surgeon. As an editor he displayed great versatility and remarkable executive ability. As a superintendent he showed great foresight, in that he decided the most delicate questions of administration instantly and correctly. He had a very retentive memory, and possessed an unusual fund of information, both medical and surgical. As a speaker he expreseed himself forcibly, clearly and succinctly. In habit he was ever prompt and punctual; in manner, courteous, polite and dignified; and he had an extraordinary character of firmness and decision. He knew no such thing as vacillation, and nothing seemed to daunt him. Difficulties that might appal others, to him only served to develop renewed courage and confidence. He possessed a kindly, generous and humane heart, and the memory of his noble character will live forever.—*W. W. in Medical Fortnightly.*

"It Never Rains but it Pours."—The Medical Department of the University of Tennessee, has been peculiarly unfortunate this winter, but having been thoroughly tested in the hand school of adversity and unjust opposition in the earlier days of its history, its Faculty have learned even how to take advantage of disadvantages, and all their trials have only strengthened and invigorated them. The loss of their handsome building in the early part of the session occasioned no interruption whatever in their curiculum, temporary quarters having been at once secured in the old hall of the City Council, which has been made quite cosey, comfortable and adequate, and will suit admirably until a new, handsomer and more complete building than their former one can be erected, which will be done in ample time for the next session.

The loss of Dr. Wm. H. Nance, who was filling temporarily the chair of Prof. Hazel Padgett, M.D., who is now in Europe, occasioned a doubling up of the work on Dr. J. S. Ward, Professor of Chemistry and Toxicology. Prof. Ward is young, energetic and able both physically and mentally for this extra duty, and the two branches Chemistry and Physiology being so closely allied and intertwined, that the remainder of the session will show no diminution whatever in the advantages heretofore a part and parcel of this school.

When Using an Emulsion of Cod Liver Oil, Use the Best.—There need be no real necessity for the discontinuance of the use of Cod Liver Oil (because of failure to obtain results from plain oil or some emulsion), for the undoubted therapeutic value of Cod Liver Oil but emphasizes the necessity of its scientific exhibition to insure satisfactory result from its employment. The cause of failure in its administration is not obscure—few patients can take plain oil, owing to its repugnant taste and the difficulty of assimilating it. The province of an emulsion being to disguise the taste, and to exhibit a volume of chemically unchanged oil in condition for easy absorption, it follows that this will be defeated unless the oil is thoroughly emulsified and in combination with agents that will not saponify it, as saponification renders it valueless and even harmful.

In emulsions with the alkaline hypophosphites of lime and soda, the association of the oil with such agents entirely changes the character of the oil and produces a liquid soap, the medicinal value of such a preparation is greatly diminished, and it is because of this that many a disgusted practitioner has abandoned using Cod Liver Oil in any form.

Admitting a preparation of Cod Liver Oil with hypophosphites of lime and soda to be unscientific because productive of chemical alteration in the oil, it follows that a combination of oil with the phosphate salts, giving positive acid reaction and thus precluding saponification, would seem to be based on sound therapeutic reasoning; furthermore, if such an emulsion exhibits a large percentage of chemically unchanged oil in minute, microscopic subdivision closely analagous to milk (nature's emulsion),

it must be preferred to plain oil as well as to alkaline emulsions, because of the difficulty and failure already referred to attending their administration.

Phillips' Emulsion positively exhibits the advantages noted. The oil is emulsified with pancreatine, and because of its scientific preparation it has for many years enjoyed an extensive professional support. A more concise statement of its claims for professional recognition will be found in our advertising columns, and we say with all candor that it is an ethical preparation, ethically introduced and maintained.

GRATIFYING.

Among the many renewals of subscriptions received for 1899, many of which contain very gratifying and complimentary remarks in regard to THE SOUTHERN PRACTITIONER, some from those who have been subscribers since its initial number, the following, from one of our long-time patrons, is so acceptable that we take the liberty of placing it before our readers in full:

"NEW HOPE, ALA., Jan. 22, 1999.

Dearing J. Roberts, D., Editor of The Southern Practitioner:

"DEAR OLD FRIEND—I thought I would part with you when my time was up Xmas, but it was so much like the parting of a fellow from his first love, when it came to the test I could not do it. I thought I was too poor to take your journal any longer, but when it came to the test I found that I was too poor a physician to do without it. It has been my 'stock in trade' ever since you, dear Doctor, mounted its editorial tripod. It is always brimful of the very cream of medical literature, rich, racy, replete with the very best reading matter for the busy practitioner.

"A happy new year to you, dear Doctor. Enclosed please find my subscription for another year. Your friend, B. W. H., M.D.

A TONIC THAT IS A TONIC.—When, a few years ago, my attention was called to Gude's preparation of "Liquor Mangano-Ferri Peptonatus, Gude" (Pepto-Mangan), so extensively used and highly extolled in Germany, with my usual antipathy for new remedies, I reluctantly gave it a trial, anticipating that I would necessarily have to combat the usual disappointing effects of most of the other preparations of iron. The results, however, were indeed a surprise to myself; for the concomitant deranging sequelæ were so slight that but in very few instances in my eqtensive utilization and experience with this special pharmaceutical preparation was I obliged to discontinue it. My experience having led me to believe that iron and manganese in combination are both indicated in the vast majority of cases of neurasthenia, this particular remedy, I am now convinced, will prove a great boon both to the patient and the physician. While it is

maintained by some that in the hemoglobin of the red blood corpuscle manganese is present, as well as iron, I have for many years procured results with a combination of both, not directly obtainable with one alone. We know, however, that manganese gives off oxygen to a greater degree than iron, and it has been argued that for this reason its internal exhibition might correspondingly increase assimilation—*Extract from a paper read before St. Louis Med. Soc. by Jerome K. Baudny, M.D., LL.D., St. Louis, Mo.*

NORWOOD'S TINCTURE OF VERATRUM VIRIDE.—This old and well known therapeutic agent is now manufactured by the Shakers' Medical Department at Mount Lebanon, Columbia County, N. Y., according to the original methods of W. C. Norwood, M.D. For many years this pharmaceutical preparation has acquired a reputation attained by few articles in the entire Materia Medica. There is scarcely a disease that has not felt its power and yielded to its prowess. Mania, Cancer, Puerperal Fever, Puerperal Eclampsia and Convulsions from other causes, Epilepsy, Chorea, Acute and Chronic Pneumonia, Orchitis, Asthenia, Phthisis Pulmonalis, and so many other morbid conditions of inflammatory, nervous and other origin, that an attempt to enumerate, we believe to be entirely unnecessary—the medical profession throughout the world being so familiar with its therapeutical effects. The only necessity is that you see that you get a good and reliable preparation by demanding on your prescriptions or orders Norwood's Tincture of Veratrum Viride, manufactured by the Shakers' Society of Mount Lebanon, N. Y., and you can depend on getting most satisfactory results.

SAMPLE OF ECTHOL was received, and at time of receiving had good case to use it. Miss ———— had misfortune to run hedge thorn one inch long in leg above ankle. It remained in one week, when she was brought to office to have it extracted. Was successful in removing thorn, but, it being a dead one, pieces of bark remained in wound. Disinfected wound with bichloride, bound it up, and sent patient home. Was summoned in two days, and found limb inflamed to groin, swollen, and very painful. Removed bandage, which was followed by small quantity of pus. Re-applied dressing. That night bottle of Ecthol was received. Visited patient next day and put her on Ecthol, teaspoooful six times a day, and injected medicine in the wound and applied cloth saturated with same. In four days pain, swelling and inflammation gone, wound healing and patient able to do her work. A. L. STIERS, M.D.

Dawson, Neb., Nov. 22, 1889.

UPBRAIDING THE DOCTOR.—Dr. Samuel Wolf, physician to the Philadelphia Hospital and neurologist to the Samaritan Hospital of Philadelphia, presents, among others, a case which is of special value at this time, He says: "The entire experience of the writer with antikamnia is not confined to the series of cases on which this paper is based, although its previous use has been limited to a few prescriptions, and those in cases where it was given after the usual routine had been exhausted. It is, however, to a striking result in one of these instances that the incentive to investigate more fully is to be attributed. A man of 42, in the course of an attack of la grippe, was enduring extreme torture from the pain of a trigeminal neuralgia. The second ten grain dose of antikamnia

gave such complete and permanent relief that my patient, a druggist of large experience, upbraidingly asked me, "Why didn't you prescribe this remedy before?"

THE IODIDES IN CHRONIC PARENCHYMATOUS NEPHRITIS—After clinical observations during the past eighteen years of the benefits of small doses of the iodides continued for months, or even years, Professor Leonard Weber, 26 W. Forty-sixth street, New York (October *Post-Graduate*) is convinced that these salts have power to retard, modify and improve subacute, chronic and inflammatory processes concerning the connective tissue of parenchymatous organs like the kidneys, the liver, the lungs, and particularly sclerotic diseases of the arterial vessels." This salutary effect he attributes to direct inhibition of connective tissue proliferation and subsequent disintegration and fatty metamorphosis of infiltrated corpuscular elements and the removal of the same. In cases with syphilitic history it is well to give larger doses. The Denver *Medical Times*, speaking of the Elixir Six Iodides, says that it is the best preparation of its kind, probably, in the market.

WE ACKNOWLEDGE the receipt from Dr. Chas. Lyman Greene, 150 Lowry Arcade, St. Paul, Minn., of a copy of three reprints, "The Treatment of Heart Disease by Saline Baths and Resisted Movements-Schott Method"; "A Case of Landry's Paralysis", and "A Case of Concentric Displacement of the Heart to the Right, Presenting Some Unusual features."

The case of Landry's Paralysis presents certain features which make it unique and serve to indicate the utility of artificial respiration in some of these cases. The patient lived forty-one days after the onset of respiratory paralysis, which would certainly indicate that in cases of moderate severity, as regards pathologic lesions, recovery might occur. A postal card to Dr. Greene will doubtless put you in possession of these reprints if you are in any way interested in these subjects.

GROVE'S TASTELESS QUININE is not a substitute for quinine, but the "*Simon Pure*" article itself, only so changed as to be deprived of its nauseating bitter taste. While we can avoid the taste by using capsules, yet they fail to dissolve occasionally in some stomachs, and should not be risked in critical cases. Then, again, many children and some grown people cannot or will not take capsules.

This preparation is along the lines of Febrilene, which has become a household word in this section, only it is in the form of a powder instead of a syrup. Grove's Tasteless Quinine Co. are to be heartily commended for getting up these two preparations, and this new candidate for profes-

sional fever is certainly deserving a thorough trial. We can assure you that you will not be disappointed.

NEURALGIC PAIN.—"Kryofine controls neuralgic pain in a marked and sometimes almost magical manner, and in some persons produces a tendency to sleep. Abnormal temperature is reduced surely and promptly, in a marked degree, and extending over several hours of time, without rigor or depression, and rarely attended by diaphoresis. Blood pressure is increased, and according to the observations of Bach this is in harmony with fall of temperature. Its chief value will be as an analgesic, because of the greater number of cases requiring relief faom pain. In typhoid fever the temperature was reduced from 2¼° to 3¼° without producing any unpleasant symptoms whatever, such as chill, depression, cyanosis, etc."—*Dr. John H. Curtis, Professor of Therapeutics, Coll. Phys. and Surgeons; Attending Phys. Lake Geneva Sanitarium, Chicago; Ill.*

BOVININE is bovine blood, unaltered in character, from the arteries of the bullock, but made palatable, is a valuable auxiliary of modern medicine and surgery. The vital activity of this living blood conserve-rests on no man's assertion; it speaks for itself to every properly equipped physician who will test its properties practically. Try it in your practice, in anemia from any cause, in tuberculosis, in dyspepsia or malnutrition in the young or old, in intestinal or gastric irritation, whether from typhoid disease or other cause, in chronic ulceration, in chronic catarrhal diseases, in diphtheria, or in any condition in which the blood is impaired. Try by the mouth, per rectum, or hypodermically.

WELL KNOWN—WELL LIKED.—The other day the Superintendent of one of the largest City Hospitals in this country said to a representative of the Imperial Granum Company, the manufacturers of that reliable dietetic preparation, Imperial Granum: "It is not necessary for your firm to send anyone here to tell me about their product, for I have used it both in private and hospital practice for over twenty-five years, and can han hardly believe that even the youngest members of the medical profession do not know of the merits of this well known and well liked food for invalids and convalescents."

SEQUELÆ OF LA GRIPPE.—N. L. Whitney, M.D., Bloomington, Neb., says: "I was laboring under great weakness of the urinary organs following upon the heels of la grippe. I thought to try Sanmetto. Before using it I had to get up from six to nine times a night. I realized immediate improvement from the use of Sanmetto, and now, unless I am oth-

erwise disturbed, I can pass the night very comfortably with one rising, some nights without any."

MR. CHAS. B. KIRKLAND, formerly connected with the advertising department of Messrs. Parke, Davis & Co., has accepted a position with Messrs. J. C. Ayer & Co., of Lowell, Mass. Correspondents of Messrs. Parke, Davis & Co. will please bear this in mind. Our business relations with Mr. Kirkland have been only of the most agreeable character, and while wishing him well in his new field, hope it may prove more profitable, but cannot be more honorable than his former one.

I TAKE great pleasure in offering my testimony to the great value of Cactina Pillets in cases of weak and irregular action of the heart. I have used them for four years, and have never been disappointed in them. They not only stimulate the heart, but improve that organ permanently. I find them very useful in all cases of typhoid fever and pneumonia.

Kent, Ind. C. B. MATTHEWS, M.D.

NOTWITHSTANDING the large number of Hypophospites on the market it is quite difficult to obtain a reliable and uniform Syrup. "Robinson's" is a highly elegant preparation, and possesses an advantage over some others, in that it holds the various salts, including iron, quinine, and strychnine, etc., in perfect solution, and is not liable to the formation of fungus growths.

"IN RE" SANMETTO: In making up our advertising forms for our January number, the advertisement of this excellent preparation was placed in an erect position. Objection having been made thereto, we place it "*recubans*" again as formerly; however, we desire to say that it is, and always will be found reliable and trustworthy, whether used in the erect or horizontal position, and there is no lying about this, either!

CONVALESCENT GRIPPE.—J. L. Munson, M.D., Newton, Kansas, says: "I used Sanmetto in case of convalescent grippe, where the urinary organs were out of order, and found it to do all claimed for it."

I HAVE used Peacock's Chionia and find it very effective. I shall continue to prescribe it in my practice.

New York, N. Y. A. P. DALRYMPLE, M.D.

Reviews and Book Notices.

ANNUAL ANALYTICAL CYCLOPEDIA OF PRACTICAL MEDICINE. By CHAS. E. DE M. SAJOUS, M.D., and One Hundred Associate Editors, assisted by Corresponding Editors, Collaborators and Correspondents. Illustrated with Chromo-Lithographs and Maps. Royal 8vo, cloth, pp. 707. Vol. II. The F. A. DAVIS Co., publishers, New York, Philadelphia and Chicago, 1898.

Vol. II of Sajous' Annual Analytical Cyclopedia begins with Bromide of Ethyl and concludes with Diphtheria, the subjects arranged alphabetically, and while we had only good words to say of Vol. I, we can but commend the one before us the more. The editor, with his years of experience in getting out "Sajons' Annual," so well and favorably known, and to which this is the successor, has been ably assisted by his co-editors, collaborators and correspondents, all of whom are well known for their attainments, both scholarly and scientific, as well as practical.

The second volume gets right down to the regular plan of the work as regards elaboration; all the articles have been prepared by their respective editors, and the result shows the kindly interest taken in the work by all the members of the staff.

The editor has aimed not only to facilitate the labors of the practicing physician and to assist investigators and authors in their researches, but he has also sought to elucidate, through contributions from men possessing special knowledge or unusual experience in a particular line, diseases whsch, owing to their complexity, are not generally understood.

Some of the important articles may be mentioned, as "Cerebral Hemorrhage," by Dr. Wm. Browning, of Brooklyn; "Cirrhosis of the Liver," by Prof. Adami, of Montreal; "Cholera," by Prof- Rubino, of Naples; "Cholelithiasis," by Prof. Graham, of Toronto; "Diabetes," by Prof. Lepine, of Naples; "Constipation," by Prof. N. S. Davis, of Chicago; "Dilatation of the Heart," by Dr. Vickery, of Boston; "Diphtheria," by Drs- W. P. Northrup and David Boviard, of New York; to say nothing

of the lesser articles on the Bromides, Digitalis and all therapeutic agents coming within the alaphabetical range of Bromide of Ethyl to Diphtheria.

As a work of reference it will prove peculiarly and especially valuable. It is handsomely printed—double-columned pages on good paper, and very neatly and attractively bound in half-leather and quaker-drab cloth.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY: Being a Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from Journals, Monographs and Text-Books of the Leading American and Foreign Authors and investigators. Corrected and Arranged with Critical Comments by an able Corps of Prominent and well-known as well as Progressive Medical Authorities, under the General Editorial Charge of GEORGE M. GOULD, M.D. Illustrated, Royal 8vo, cloth, pp. 1102. Price, $6.50. W. B. SAUNDERS, 825 Walnut street, Philrdelphia, publishers, 1899.

The mere publication of the title of this magnificent compilation of the year's work and progress in medicine and surgery ought to be sufficiently attractive to induce any practitioner of medicine or surgery to invest his shekels in its purchase, though they be hard earned. The whole field of medical literature, the outcrop of the past year, has been carefully winnowed and such matter as was likely to be of value, as discerned by the careful scrutiny of an able corps of co-workers, has been thoughtfully culled from the medical journals, monographs and text-books, etc., that have appeared during that time; to which have been added critical comments, and a preliminary summary in each particular field; woven together in a handsome and well-printed volume by its able editor-in-chief.

Each successive year is day by day adding to our progress and advancement, and no one man by limiting himself to his own labors could scarce begin to cover the field, though the entire mass of literature had been placed right at hard. Here we have it epitomized—not so briefly as to obscure a practical understanding, but the grain is carefully separated from the chaff by twenty-four competent and well-selected observers, each one noted for his abilities in his particular field.

So far as we can see, nothing has been omitted in this grand compilation, nor anything exaggerated as of undue importance;

and the work has been brought as fully up to the beginning of the current year as was compatible with a book covering entirely so vast a field, of so great importance and magnitude.

A MANUAL OF BACTERIOLOGY. By HERBERT U. WILLIAMS, M.D., Professor of Pathology and Bacteriology, Medical Department University of Buffalo. 8vo, cloth, pp. 263, with 78 illustrations. Price $1.50. P. BLAKISTON'S SON & Co., publishers, 1012 Walnut street, Philadelpia, 1898.

In this very excellent little work we find described in clear and practical manner the laboratory technique which the beginner must pursue, and at the same time a summary of the facts of bacteriology most important to the physician. While it is claimed by its author to be simply a compilation, it will prove specially useful to the student of medicine and the general practitioner who has not time for study of more comprehensive volumes. The chapters on Germicides and Surgical Disinfection, by Drs. Thos. B. Carpenter and C. P. Smith, will be useful for information so practical in character presented by them, but especially in correlating that information with the facts of bacteriology.

CHRISTIAN SCIENCE, *A Sociological Study*, is the title of an address delivered by Dr.Chas. A. L. Reed, and which by resolution of the N. W. Ohio Medical Association, has been published in pamphlet form by Messrs. McClelland & Co., The Groton, Cincinnati, Ohio, at the price of 10 cents per copy, or $1.00 per dozen.

This pamphlet has been printed in order to put into the hands of the laity a few facts, that they may judge correctly of the claims of these would-be divinely inspired healers of the sick to be allowed to go forth upon their chosen path, seeking for those whom they can devour, or, more properly, whose pocket-books they can successfully deplete. Within its pages is plenty of food for thought. Get a few copies and place them in the hands of your friends who are disposed to stray off after this pitiable delusion.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,
DEVOTED TO MEDICINE AND SURGERY.
SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.
DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

MILK INFECTION AND ITS PREVENTION.*

BY ERNEST B. SANGREE, M. D.,
Professor of Pathology and Bacteriology, Medical Department of Vanderbilt University.

Of all foods, milk is the one most commonly used and the most constantly necessary. It is also, unfortunately, of all foods the one most likely to be contaminated and the one easiest of adulteration. This adulteration is probably much more common than is generally supposed, so accustomed are we to take for granted that all men are honest until they are proved not to be. In Philadelphia, for instance, when the first careful inspec-

* Read at meeting of Nashville Academy of Medicine, Feb. 2, 1898.

tion of milk was begun, it was found that over 40 per cent. of the milk brought into that city was mixed with water; now a case is rarely found.

All physicians know that the mortality among artificially-fed infants is far greater than that among those who nurse. Thus, in 10,000 deaths reported in Berlin of children under one year of age, it was found that more than two-thirds of them had been fed artificially. Hope, in England, found that out of 1,000 deaths of infants investigated, only three were breast-fed. Another investigator, in Bavaria, found that out of 400 deaths of infants inquired into, 96 per cent. of them had been fed artificially.

Although cow's milk is beyond all odds the best food, after mother's milk, the notorious uncertainty as to the character of the milk by the time that it reaches the baby is such that a host of substitutes has sprung up.

The cause of a great many of these deaths was inanition, and there can be little doubt, in the light of what we know of milk adulteration, that not a few of these were starved to death. The mother, while giving the child an abundance of what she supposed was milk, was in reality feeding the helpless infant with only half as much nourishment as it needed.

To every right-minded person it must seem truly shocking that this great crime should be daily carried on in communities where the method of prevention is so certain and so easily brought about.

Although efficient milk inspection in a city will soon rid it of most of this robbery of pocket, of health and of life, caused by adulteration with water, to make certain of clean milk and pure milk the inspection must go much further. It is only in comparatively recent years that communities have awakened to this fact. To know what to avoid one must know the many ways in which milk may be contaminated. If the cow has a dirty stall to lie in, her sides and udder will be covered with this dirt; and I have frequently seen cows in the spring whose sides were covered with hardened excreta an inch or more thick, the result of occupying a dirty stall through the winter, yet the milk of these cows was for sale. If the stalls are clean but the cows are not brushed and their udders washed, then hairs are constantly fall-

ing down from sides and udder into the wide-mouthed bucket usually employed in milking.

A German investigator found all the way from three to fifteen grains of cow dung to the quart of milk in the course of some experiments he was making in that line, and I am certain that the average American cow is not more cleanly housed than is the German. If the milkman does not wash his hands before milking, any dirt he has on them is of course liable to fall into the bucket; yet I venture to say that there are not five milkmen about Nashville who wash their hands before milking. He may have been currying the horses, slopping the pigs, cleaning out stable, or doing any other conceivable work about the barn, and then proceed at once to the milking. The bucket may be contaminated before the milk goes into it, either by standing in a dirty, dusty stable, in a house in which there is some infectious disease, or it may have been only half-cleaned after the previous contents were emptied out. The milkman or some of his family may have some contagious, infectious or loathsome disease, and directly infect the milk by handling it. How many possibilities and probabilities are there where indifference, ignorance and carelessness have full play!

The milk may further be contaminated by being handled afterwards by some dirty or infected person, or may be put into dirty or unclean cans or vessels. Some think that by getting their milk in a separate glass jar they are getting good milk, but after their milk has run the gauntlet of all the previous possibilities their jar may prove a much more dangerous container than the general can, for how do they know where that jar was the day before? It may have been at the house of a scarlet fever or diphtheria case, and unless, in this instance, it were thoroughly sterilized, it would prove only a special dealer of disease. And in how many of the dairies about Nashville can one count on the sterilization of a can or jar!

There is no longer any guesswork about the infectiousness of milk. Commissions appointed both in Europe and in this country have faithfully investigated the subject so as to make their findings satisfactory and irrefutable to any rational man who is acquainted with the standing of the committeemen and who will read the report of their work.

Mr. Ernest Hart presented, in 1881, to the International Medical Congress at London a paper tabulating the history of fifty epidemics of typhoid fever, fifteen of scarlet fever, and seven of diphtheria—all traceable to the milk supply.

Prof. Victor Vaughan, before the Congress of semography in London, 1891, says:

"Mr. E. Hart tabulated fifty epidemics of typhoid fever, and we have collected eighty-eight, making a total of 138 epidemics traceable to a specific pollution of the milk, the main facts of which are presented in a subjoined table.

"In 109 instances there is evidence of the disease having prevailed at a farm or dairy.

"In fifty-four epidemics the poison reached the milk by soakage of the germs into the well water with which the utensils were washed; and in fourteen of these instances the intentional dilution with polluted water is admitted. In six instances the infection is attributed to the cows' drinking or wading in sewage-polluted water. In three instances the infection was spread in ice cream prepared in infected premises. In twenty-one instances ehe dairy employes also acted as nurses. In six instances the patients while suffering from a mild attack of enteric fever, or during the first week or ten days of their illness, continued at work, and those of us who are familiar with the personal habits of the average dairy boy will have no difficulty in surmising the manner of direct digital infection. n one instance the milk tins were washed with the same dishcloth used among fever patients. In this instance the disease was attributed to an abscess of the udder! In another to teat eruption; in still another to a febrile disorder in the cows. In four instances the disease was spread through the medium of creameries, and in one instance the milk had been kept in the sick room.

"Mr. Hart collected statistics of fifteen epidemics of milk scarlet fever, and we have tabulated fifty-nine, making a total of seventy-four epidemics spread through the medium of milk supply. In forty-one instances the disease prevailed either at the milk farm or dairy.

"In six instances persons connected with the dairy either lodged in or had visited infected houses. In another instance the milkman had taken his can into an infected house. In

twenty instances the disease was attributed to disease among the milch cows; in four of these the puerperal condition of the animal is blamed.

"In nine instances disease of the udder or teats was found. In one instance the veterinarian diagnosed a case of bovine tuberculosis. In six instances there was loss of hair and casting of the skin on the animals. In another instance the cattle were found to be suffering more or less from febrile disturbance. In ten instances the infection was conveyed by persons connected with the milk business, while suffering or recovering from an attack of the disease, and at least eight cases of persons who acted as nurses. In three instances the milk had been kept in the cottage close to the sick room. In another instance the cows were milked into an open tin can, which was carried across an open yard past an infected house; and in another instance the milkman had wiped his cans with white flannel cloths, presumably infected, which had been left in his barn by a peddler. Two epidemics appear to have been instances of mixed infection of scarlet fever and diphtheria.

"He also collected statistics of seven epidemics of milk diphtheria, and we have added twenty-one more. In ten of these twenty-eight instances diphtheria existed at the farm or dairy-and in ten instances the disease is attributed directly to the cows having garget, chapped and ulcerative affections of the teats and udder, while in one instance the cows were apparently healthy, but the calves had diarrhœa. In another instance one of the dairymaids suffered from a sore throat of an erysipelatous character; in another the patient continued to milk while suffering from diphtheria; and in still another one of the drivers of the dairy wagons was suffering from sore throat.

"In June, 1890, the Connecticut State Board of Health was requested to investigate an outbreak of typhoid fever at Waterbury. Attention was first directed to the water supply and drainage, which were found not to be the cause. There were thirty-five house invasions, with fifty cases. Of these twenty-six houses, with forty-one cases, it was discovered were supplied with milk from the same milkman; that this milkman secured his milk from several farms; that the invasion followed the route of milk from a certain one of these farms. An investigation

was made at one of these farms, and it was found the farmer and his daughter and a farm hand had been sick with typhoid fever. The excreta of the sick were thrown upon the barnyard, the hired man defecated, so long as able to be about, in the cow stables; the barnyard was in a bad condition. The milk was handled in a shed connected with the barn. In fair weather the milk cans were washed outside the shed. A door opened from the shed into the cow stables on one side, and another door into the barn yard. In the yard was a tank in which the milk cans were placed to cool. The can lids were tilted so as to admit the air. There could be no question as to the source of the infection of the milk. The water used was from a spring, and free from the typhoid bacillus. The material of the barnyard was infected and the conditions were favorable for extensive multiplication. It was tracked into the milk room by the men, and there drying into dust, was carried by air currents into the milk.

"In April, 1865, a serious outbreak of typhoid fever occurred in the city of Stamford, Conn. It was so sudden and widespread that Dr. Lindsley, Secretary of the State Board of Health, was called to make an investigation as to the cause and to assist in suppressing it. He reports that attention was first given to the water supply, but soon was abandoned; so also the food supply. It was soon discovered that sickness followed exactly the route of a certain milkman. In various parts of the city there were 386 cases, of which 376 were persons who used milk from this milkman; while in houses contiguous where milk from another source was used, there were no cases. There were twenty-five deaths. The appearance of the disease was simultaneous over the district. So soon as the source of infection was discovered, the milk supply from this man was stopped and the disease at once subsided.

"Investigation of the premises of the milkman revealed the fact that he washed his milk cans with water from a well which chemically showed contamination of sewage. Prudden discovered 6,699 living bacteria in a single cubic centimetre of the water. The water in the well was only nine inches below the surface, and overflowed in the spring, and surface drainage was toward the well. A shallow privy vault, leaking at the surface, was twenty-five feet distant and free of access to a 'walking case'

of typhoid fever. The conclusion was irresistible that the source of this outbreak was milk, and the source of infection of the milk was the water from this well contaminated by drainage from this privy."

Along with the occasional danger of infection from scarlet fever, diphtheria and typhoid, comes the ever-present danger of infection from tuberculosis. This disease has been found to be both generally disseminated among cattle and frightfully prevalent. Unfortunately it happens that the higher grades of cows, the best milkers, are those most likely to be infected. Herds of Jerseys, for instance, that have been examined have been found to contain often from 30 per cent. to 70 per cent. of tuberculous cattle.

Animal experiments have conclusively proved that healthy calves given to tuberculous cows to be suckled have contracted intestinal and general tuberculosis, and, on the contrary, the calves of tuberculous cows put to suckle from healthy cows have remained free from this disease; thus showing that the disease can be directly transmitted from the cow to the calf by means of the milk. From this one would naturally conclude that the same result is possible in the case of the baby fed on cow's milk; and although, from the nature of the case, such a fact would be very difficult of scientific proof, several cases have been published which, along with a multitude of probabilities, establish this as a fact beyond a reasonable peradventure,

Dr. E. O. Shakespeare indeed, a high authority, attributes one-fifth of all the deaths of infants and young children feeding on milk to tuberculosis beginning in some portion of the digestive organs. An English commission of eminent men appointed to investigate this subject, said: "The milk coming from cows having tuberculosis of the udder possesses a virulence that can only be described as extraordinary."

Now what can be done to prevent all this? Everything. With regard to tuberculosis we have now a safe, easy and certain test for the presence of this disease in cattle—tuberculin. This substance is prepared in the following manner: A pure culture of the bacillus tuberculosis is allowed to grow on a large quantity of bouillon for some weeks, and this substance is then filtered through a filter that allows the fluid to pass through, but

not the bacilli. This substance containing the toxins, or poisons, elaborated by the bacilli, is evaporated to a certain extent, mixed with some preservative and bottled for transmission. Tuberculin, when injected under the skin of a tuberculous animal, causes a marked rise in the animal's temperature for a certain length of time. If the cow is healthy, then no change is noticed. This method is now very generally employed, and should be introduced into the dairy herds about Nashville. There is no reason why the cows about here should be any exception to the rule, and indeed veterinarians tell me that they have seen many undoubtedly tuberculous cows among the dairy herds; and there is no doubt that milk containing the deadly germs of tuberculosis is carried from door to door. No dairyman should be allowed to sell milk in this city unless he submits to this examination of his cattle, and at once gets rid of all tuberculous cows, or so disposes of them that their milk is not included in that which is brought into the city.

Every dairyman, also, who is licensed to send his milk to this city should submit to an examination of his stables, milk cans, methods of milking, handling the milk, and transporting it to the city. He should be compelled to make such alterations in the feeding of the cattle, in cleanliness of milkmen, stables, animals, cans and the like, that the inspector should suggest. For instance, the feeding of cows on city swill should be stopped. Swill milk is bad milk, yet this is done in some of the dairies about Nashville. There are some 150 dairies about this city, I am told, and of this number only a very few make any pretensions to such cleanliness as the conditions of this traffic demand. Many of them are conducted in a manner that it would chill the observer to witness, the general care of the animals, along with the milking, being given over to ignorant, filthy and careless negroes.

The remedy is simple and efficient. A competent and intelligent veterinarian should be appointed by the city at a respectable salary to inspect these dairies and make his report to the Health Office, and according as these reports were favorable or unfavorable the dairyman should be licensed or have his license withheld or withdrawn. In the city an inspector who would inspect should be appointed, who would make it his business to

collect samples of milk, which should be analyzed by a competent bureau, and according as the milk was up to or below the standard the milkman should be prosecuted or not. By a plan of this kind Nashville would, with regard to this important foodstuff, soon be in a position similar to that occupied by most other cities of its size throughout the civilized world.

THE SERUM TREATMENT OF DIPHTHERIA.*

BY WILLIAM CHEATHAM, M. D., OF LOUISVILLE, KY,

I propose in this paper to endeavor to answer the objections which have been urged to the use of the serum treatment of diphtheria, as, strange to say, there are still some disbelievers.

First: Some refuse to use it, saying there have been some fatal cases as the result. Prof. Langerhan had a son to die immediately after an injection of antitoxin. Prof. Strassman, who at the request of the State held an autopsy, came to the conclusion that it was the result of the inspiration of food. Prof. Langerhan opposes this view. The antitoxin was proven to be normal. Chas. T. McClintock says such deaths are the result of shock. Adamkiewiaz attributes such deaths as that of Miss Valentine and the son of Prof. L. to the forcible injection of the serum and its specificity causing a disturbance of the self-regulating apparatus. Tossett reports a fatal case in which a cerebral embolism was found. Johannersen says it is the result of the introduction of foreign serum into the blood; and for that reason the antitoxin should be as concentrated as possible. Seibert and Schyzer think air must have entered into the venous circulation. Moizard and Bouchard report a case of angina in which the Loeffler bacillus could not be found; antitoxin was given, and the throat was clear in three days. In three more days vomiting,

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*This paper, read before the Mitchell District Medical Society, December 29, 1898, and published in *The American Practitioner and News* of January 1, ult., we regard as so satisfactory and conclusive that we are gratified to place it before our readers.—ED. S. P.

diarrhea and fever set in, and the fourth day the patient had constipation, strabismus, dilated pupils and coma, which they attributed to the antitoxin. Roux does not think so, as the same same serum had been used in 100,000 injections in France with no accident.

That sudden deaths do sometimes follow the injection of antitoxin no one doubts, but it has not been proven that the antitoxin was the cause. Death follows hypodermatics of other substances; it follows the inhalation of anesthetics, yet who will give up their use? Deaths following the use of antitoxin, even could it be proven that the antitoxin was the cause, considering the millions of times that it has been used, are exceedingly rare, and should keep no one from using a remedy which has saved so many lives and has reduced the death rate of diphtheria at least one-half, and has rendered the management of a majority of cases of this dreadful disease so simple and so painless.

Second: The claim has been made that paralysis with or without death is more common after the use of antitoxin. Jacobi admits we see more cases of paralysis because more cases of diphtheria recover. If the death ratio has been reduced 50 per cent. by the use of antitoxin (which statistics prove), and in making this statement that old quotation, "the lie, the damn lie, and statistics," is not forgotten, there are just twice as many cases left to be paralyxed. Washbourn (*British Med. Journal*, Aug. 17, 1895) agrees with Cohn as to the cause of the increase in the number of cases of post-diphtheritic paralysis, and gives as another reason that the antitoxin does not neutralize the effect of the invasion of bacteria and other streptococci. Dana (*Med. Record*, April 11, 1896) says antitoxin does not decrease the number of the palsies, and as a reason he says not enough is given to prevent the specific action of the toxin upon the nervous system.

I admit there are more palsies since antitoxin came into use, but not so many in proportion to the number of recoveries. To objection second, then, I say it is not so.

Third: Nephritis is more common after the use of antitoxin. The International Medical Annual of 1896, page 237, says Thomas and Mapes immunized 136 children, aged from three weeks to four years, introducing from 50 to 200 units, and found but four with a trace of albumen in the urine, but this in no case

persisted more than four days. Reiche (*Centralbl. f. Innere Med.* No. 50, 1895) investigated the kidneys of eighty-five fatal cases before the antitoxin period, and found serious trouble with the kidneys of all; there is positive evidence that antitoxin does not damage the kidneys. The damage, if any, is done by the toxin before the use of the antitoxin.

Fourth: That antitoxin has an unfavorable effect upon the blood, decreasing the number of red corpuscles, etc. Billings (*Med. Rec.*, April 26, 1896) investigated this subject thoroughly, and says the antitoxin treatment of diphtheria has no deleterious effects upon the blood corpuscles; on the contrary, it seems to prevent degenerative changes which would otherwise be brought about. Schlesinger (*Arch. f. Kinderh.*, 1996, Bd. xix, S. 378) and Ewing (*New York Med. Journal*, Aug. 10, 1895) arrive at the same conclusion.

Fifth: Antitoxin increases the temperature and disturbs the circulation. It is true that within twelve hours after the antitoxin is injected the temperature may rise from one to three degrees, but in the next twelve or twenty-four hours it becomes normal. The circulation sympathizes with the rise and fall of the temperature.

Sixth: The use of antitoxin has not decreased the death rate of diphtheria. Statistics on this subject are becoming so large that they are difficult to manage. Any one with an unbiased mind, and who has treated many cases of diphtheria in pre-antitoxin days and since antitoxin has come into use, must say nay to objection six. The favorable statistics on this subject are attacked in many ways. The favorable statistics on this subject are attacked in many ways. The objector tells us continnually that the disease is not severe in type; that many cases called diphtheria now are not diphtheria; that Loeffler's bacilllus is not the true bacillus; that it is found in the mouths of many healthy people; that for these and other reasons our statistics are false; that the gross mortality is not decreased; that the local and general treatment is kept up as formerly.

Statistics show beyond any doubt that the fatality of diphtheria has been decreased at least 50 per cent. Numbers of physicians have told me that it was very rare to have a case recover in their practice before they began the use of antitoxin.

diphtheria (croupous diphtheria or membraneous croup), and three the ordinary form of tonsillar diphtheria, all of whom made good recoveries except one, a little girl of two years, who was in a moribund state when I arrived, I told the parents I was too late, but they were anxious for me to do something, so I gave 1,500 units. She was so near gone she did not flinch. She died in less than two hours after my arrival. This case was of the pharyngeal variety. Another case of same (membraneous croup) I want to relate. Washington Applegate, nine months old, son of Irwin Applegate of our town; babe took sick November 3, sore throat, slight fever; saw him 4th, but could not determine what was the matter, and told mother if he coughed croupy to send for me, but she neglected until next morning, and when I saw him he was breathing very hard and hoarse, shrill cough; diagnosed croup; could not get antitoxin except 500 or 3,000 units. I gave 500 units with mild chlorid. and carb. soda, quinine, syrup white pine, and muriate of ammonia. We expected more antitoxin on stage or express. At four o'clock I got word to come over, that the babe was dying. I got the 3,000 units; at the same time word came to come to Ora Shucks', four miles, boy three years old had croup; so I gave Applegate's babe 1,500 units of the 3,000, and took rest in syringe and drove to Shucks', four miles, and gave his boy the remainder. Applegate's babe was very bad. The 500 seemed to have no effect on it. I had ordered an emetic of subsulphate and ipecac without much relief. Gave whisky before antitoxin, but when I gave the antitoxin the babe seemed to give down, and as all thought dying, but I rubbed him with whisky and warmed him, and in ten to fifteen minutes he began to revive, and appeared better all night. Gave plenty of whisky, cough syrup, and nourishment; appeared better next morning, but gave him 1,000 units more, and the babe continued to improve and is now well.

"I have seen two little girls who only required one dose of 1,500 units each, one four and one two and a half years; the one four with croup and pharyngeal diphtheria, the other tonsillar diphtheria.

"Conclusions from my limited experience: Early treatment is best; large dose, 1,500 to 2,000, at once the best; followed by smaller doses if needed; inject antitoxin between points of the

scapulæ on either side of spine; no danger of abscess if proper aseptic precautions are observed.

"I have used the single X except one dose, aud find just as good results. There is but one point in favor of XX, and that is the less bulk of serum to be injected. I have practiced giving it every twelve hours. I think that if an additionel dose is required, there is no good reason for waiting twenty-four hours.

"Now, doctor; as I said, I have had eleven cases, eight of them laryngeal diphtheria and three of the tonsillar diphtheria, ten of whom have made good recoveries. The one should not be considered as being treated, as it was dying when first seen. I think antitoxin the greatest discovery that science has made since Jenner gave us vaccination. I think it is one of the few specifics."

This letter, I think, is one of the strongest endorsements I ever saw of antitoxin. If statistics are of any value whatever, those of the wonderful effect of antitoxin in diphtheria are the most complete, and should be the most convincing ever published. Our opponents say that diphtheria is not so severe as in former years. Antitoxin has been used in so-called malignant cases with wonderful results; it has been used in hospitals say one month with good result, and then left off because it could not be obtained, aud the death rate would return to the old per cent.; then the use of antitoxin begun again with a great reduction in the death rate. All of this in the same hospital, in the same epidemic, in the hands of the same physicians—what could be a fairer test? Loeffler's bacillus is the true one; this ha been proven as surely as any problem in medicine. Why, then, does it exist in the mouths of so many healthy people and not cause diphtheria? Why do other bacilli and bacteria behave the same way? First, there is no local lesion to permit their entering. A bad cold, an inflamed tonsil, an abraded surface, then what will result? I have a number of times in my life put my mouth to those of children with malignant diphtheria; I have two or three times put my mouth to tracheotomy wounds in cases of malignant diphtheria; all of these cases but one have died of the disease; I did not have diphtheria. It is true I took some precautions, such as washing my mouth with antiseptics. Again, in the mouths of two healthy children highly virulent bacilli

ve been found in Prof. Escherich's clinic. The assumption at these children owed immunity to antitoxic properties of eir blood-serum was proved correct by experiment (Gould's ar Book, page 733, 1897). He believes that such cases have ed a benign attack without discovery; such we all know is ite common; that the local and general symptoms of a faucial pharyngeal diphtheria are much more mild than those of oth- inflammations, and are, as stated above, much less painful, know to be a fact.

Another argument used is that immunizing is a failure. Here ain the statistics are getting so large as to be difficult to handle. ggs (*Med. News*, November 30, 1895) gives us convincing sta- ies on this point. In the New York Infant Asylum there re 107 cases of diphtheria in 103 days; at this time 224 chil- n received from 100 to 200 units apiece; there was one mild e in the next nineteen days, six cases after thirty days. At second immunization in the same asylum there had been six es in twelve days; 245 children were immunized. There was mild case after twelve days; four after thirty days. Biggs' ort included four other institutions, in all of which there re 1,043 immunizations, with three cases in the first nineteen s and thirteen after thirty days. This is about as good as disease itself does. Morrill (*Boston Med. and Surg. Jour.*, ne 27, 1867) says immunizing injections obviated the closing the Boston Children's Hospital in the early part of 1895, a tingency which had arisen three times in 1894 before diph- ria antitoxin was known.

Is it true that local and general treatment is kept up as in -antitoxin days? In speaking for myself, I say no. Where sed to use Loeffler's solution, hydrogen dioxide, salts of iron , mercury, and such severe medication with the mop and nizer, which I now believe hastened the death of some of my ients, I now use a simple wash of boric acid or Dobell's solu- , such as I would use in a case of simple catarrh, and if the ient resists this enough to depress him much, I leave it off repeat every twelve hours the antitoxin. You may say this resses too, as it causes pain; you can freeze the part so it ses no pain, or not freeze it either, but carry it to the point local anesthesia. Local cleansing is of much consequence,

no doubt, as cocci and bacteria which develop locally, and upon which diphtheria antitoxin has no effect, must be taken care of; other serums deal with these successfully. The nervous system suffers much in this disease; the toxins vent their malignancy upon this system, and strychnia with iron is often indicated. But let us acknowledge for sake of argument that we do use as much local and general treatment as before, but also assert that we save twice as many cases as before—this is surely not against antitoxin.

Diphtheria, in my opinion, is difficult to diagnosticate, even when the seat of the disease is under distinct observation. Typical cases are easy, but there are many atypical; the pulse may be strong or weak; the temperature normal, subnormal or elevated; when subnormal, of course, the circulation is liable to be a pointer; there may or may not be membrane. This may sound strange to some, yet I have seen cases with much redness about the fauces with no membrane followed by all the sequels of diphtheria. One answer to this will be given, that the membrane might have been concealed somewhere; this is possible. Again, the amount of membrane does not indicate a prognosis. I have seen membrane over the fauces, in the pharynx, over the palate, half over roof of mouth, with but little constitutional disturbance. Again, I have seen an exceedingly small deposit on one tonsil with malignant symptoms. The location of the membrane is of some prognostic importance: First, if in the larynx, on account of its mechanical obstruction to respiration. Again, if in the nose or naso-pharynx, also on account of its obstruction to breathing, forcing mouth breathing; and again, on account of the difficulty in carrying out local treatment to correct the effect of the cocci and bacteria not affected by the diphtheria antitoxin.

In conclusion, then, let me advise the use of diphtheria antioxin in all cases in which there is no doubt of diphtheria, and in all cases of croup, not spasmodic; in all doubtful cases of inflammation of the respiratory tract from the bifurcation of the trachea up; give it early and repeat it as often as necessary. Six thousand units have been given at one injection, and 16,000 units in one case. Give antitoxin serum produced in the United States and Canada; give the concentrated solutions for several reasons: First, I believe it has been demonstrated that the skin

eruptions and joint complications which follow the use of diphtheria antitoxin arise from the quantity of the serum, not the antitoxin. Again, a small injection takes less time and is less painful than a large one. The eruption may resemble scarlet fever, measles (without the coryza), nettlerash, or a petechial erythema. Why antitoxin does fail sometimes is answered by DeBlasi and Russo-Traville (*Riforma Med.*, No. 170, 1896), who examined ten cases in which there was true culture of diphtheria bacillus, the mortality was 27 per cent.; seventy-six cases in which the bacillus was associated with staphylococcus pyogenes; mortality 33 per cent.; seven cases in which the diphtheria bacillus was associated with streptoccoccus pyogenes and Frankel's pneumococcus; mortality 43 per cent.; three cases in which the bacillus was associated with bacterium coli, in which the mortality was 100 per cent. In nine fatal cases of diphtheria in which antitoxin had been used, Stokes (*Boston Med. and Surg. Jour.*, December 12, 1895) found pyogenic cocci in the blood of eight. What is an antitoxin unit? It is the least strength which will neutralize ten times the smallest fatal dose of diphtheria toxin in a half-grown guinea pig. How does diphtheria antitoxin act? As yet it is all theoretical. Some say its action is chemical. Behring thinks the antitoxin neutralizes the toxin; yet mix them and inject them into a guinea pig and diphtheria will result. Brieger and Boer have demonstrated that antitoxin is an albuminous body and can be separated from the serum. Some antitoxins will protect from other than their own toxins; thus anti-tetaneous serum against snake venom. Bouchard holds that the antitoxin acts not on the toxin to neutralize it, but on the animal body to render it resistant to the action of toxin (Gould Year Book, pages 618 and 619). In giving antitoxin I inject it into the outer part of the thigh. I wash my syringe in pure alcohol, then boil it. I wash the part in carbolic acid solution for its cleansing and anesthetic effect; wash it in alcohol, spray the part with chloride of ethyl to anesthetize, pour solution acid carbolic or alcohol on cotton, place it over needle wound, and hold it in place with adhesive plaster: have never seen the least reaction follow.

Selections.

A SPEEDY METHOD OF DILATING A RIGID OS IN PARTURITION.—Dr. Farrar, Gainsborough (Brit. Med. Journ., September 17th), describes "a new and speedy method" of dilating a rigid os. He had been in attendance on a primipara off and on for forty-eight hours, and yet at the end of that time the os was not larger than a shilling, and felt very much like a circle of sheet tin. The patient was losing self-control, and as chloroform was contra-indicated he had decided to incise the margin of the os, and before doing so applied a local anesthetic—cocain, 10 per cent. solution—both outside and inside the os. After waiting four minutes he prepared to use the scissors to the margin of the os, and was agreeably surprised to find that "the os had not only lost its rigidity, but that it was widely open and as flexible and distensible as a rubber bag."

Fearing that there was something of "the accidental" in this case he kept a sharp look-out for the next rigid os, and the cocain acted in a similar manner a few months later.

He then brought the two cases to the notice of the Obstetrical Society of London. Now he adds three additional cases, in all of which the cocain acted within four minutes, and in which there could be no reasonable doubt that the result was due to the cocaine. In cases of undoubted rigidity, the result of active physiological causes, he does not expect to find failure. "Try it for yourselves and report the result."—*Canadian Practitioner and Review.*

DIPTHERIA ANTITOXIN.—Dr. F. Gordon Morrill (in Universal Medical Magazine) visiting physician to the Children's Hospital, of Boston, as a result of his observations and researches upon the immunizing power of a single injection of diptheria antitoxin, recorded in the *Boston Medical and Surgical Journal*, concludes:

"1. That immunity in any given case, of no matter how thorough exposure to diphtheria, may be conferred, for at least ten days, by the injection of a small dose (100-250 units) of serum, provided it is given twenty-four hours previous to actual infection.

"2. That a large dose (250 units for a child of two, up to 500 units for one of eight or over) will confer safety for three weeks—or to be a little more conservative, let us say twenty days—under similar conditions.

"3. That no harm will result from the treatment in a vast majority of cases of *sick* children, and probably in no case of a healthy child provided the serum used is up to the present standard of purity.

"In conclusion, I would say that any one who thinks that antitoxin will prevent the occurrence of a follicular tonsillitis or of a coryza in an individual who happens to have the Klebs-Loffler bacillus in his throat or nose will be disappointed; for neither of these conditions constitute a diphtheria any more than the coexistence of the pneumococcus in the saliva and a bronchitis constitutes a frank pneumonia. I will add that a physician who fails to promptly immunize the members of a family or close community in which diphtheria breaks out, neglects to do his duty by those whose safety lies in his hands."—*Clinical Review.*

A GOVERNOR'S OPINION.—Gov. Adams, in his opening address before the American Medical Association, said of physicians: "With all their ability they are as modest as they are skilful. Doctors are ever tolerant, indulgent and generous, unless called to consult with a member of some rival school. There are several systems of medicine and curing, and my experience with legislative bills relating to recognition and practice has given birth to a suspicion that the first principle of each school is that the others ought to be abolished, compelled to quit work, or go jail. Personally, my condition has much to do with my faith in schools and systems. When I feel lonesome and forsaken; when the newspapers, the politicians and the disappointed turn their pens, tongues and scalping-knives upon me, just because I was not so wise as they would be in the conduct of my office and in

making appointments; then I feel the need of the soothing, sympathetic treatment of the Christian scientist and faith cure. When, in what you might call the loafing, novel-reading degree of invalidism, I call to my homœopathic friends. Their remedies seem as pleasant as their gentle touch and manners; their dissertation upon the powers of atoms is as fascinating and convincing as a chapter from Tyndall or Hugh Miller. But so powerful is the influence of youth and early training that when I am stricken with a real ache and feel that there may be a call to close my account, I send for the regular old calomel doctor, and I want him quick."—*The Atlantic Weekly.*

An Anaphrodisiac Action of Thyroidin.—Anaphrodisiacs are not greatly in demand in therapeutics, though various drugs are known to exert incidentally a depressing effect on the genital functions. According to E. Riviere, of Lyons, thyroidin is one of the latter group, and he reports two typical cases of men who sought relief from exaggerated obesity in the thyroid treatment. They both lost weight very rapidly under the influence of the drug, but observed with surprise, not unmixed with apprehension, that the sexual function had fallen completely into abeyance. This condition persisted for some time after the cessation of the treatment, though the function was eventually restored. It is suggested that this "therapeutical castration" may possibly help to explain the inhibitory influence exerted by the gland on the growth of uterine myomata and especially on the hemorrhage which their presence occasions. On the same lines there is reason to believe that thyroidin may prove useful in the treatment of prostatic patients whose troubles are due to congestion of the genito-urinary apparatus.—*Medical Press and Circular.*

The Use of Morphine in Bright's Disease.—*The Lancet* says: "In 1873, in the New York *Medical Record*, Dr. Loomis stated that he had treated uræmic convulsions by the hypodermic administration of mophine, with marked success; in *The Lancet* of August 3 and 10, 1889, Dr. Stephen Mackenzie confirmed his

conclusions. At the recent annual meeting of the American Medical Association Dr. Sydney Ringer, of London, read a paper on this subject, "The Use of Morphine in Bright's Disease," which was published in the *Journal of the American Medical Association* on October 8th. Dr. Osler writes concerning uræmia: 'For the restlessness and delirium morphine is indispensable. Since its recommendation by Stephen Mackenzie I have used this remedy extensively, and can speak of its great value in these cases. I have never seen ill effects or tendency to coma follow.' Dr. Ringer entirely confirms these statements. He finds that morphine hypodermically employed is of conspicuous benefit in uræmic dyspnœa and in uræmic asthma. But of course dyspnœa due to dropsy of the lung or fluid in the chest is not benefited. Also the headache and sleeplessness of uræmic patients can generally be removed. Dr. Ringer has not employed this treatment in uræmic convulsions or coma, but has largely used it for other uræmic troubles, and is certain that it may be employed in these cases, without risk and with even prospect of benefit."—*Medical Record.*

SUTURE OF AURICLE OF THE HEART.—E. Giordano (*Presse Méd. Belgique*) reports the first case of suture of the left auricle, for a wound in which the knife had passed through the entire thickness of the wall. The condition of the patient rendered intervention imperative, and it was impossible to take all the desirable antiseptic precautions. The condition was satisfactory for a few days, but bloody pus then appeared in the drain and death ensued in two weeks. The query whether to lose time preparing the patient for the operation, or to take the chances of infection, is a vital one in such cases. The necropsy showed that the patient had recovered from the wound in his heart, that his purulent pleurisy was also on the way to recovery, and that he succumbed to a later complication, abscess in the right lung. The wounds in the auricle and in the pericardium were perfectly closed with a linear cicatrix. Farina, of Rome, sutured the right ventricle for a wound five to six millimetres in length, in 1896. The patient succumbed to bronchopneumonia, but the heart was found cicatrized. Rehn's case

was cured, also one by Parozzani, and another by Parlavecchio. Others that did not result in recovery are reported by Parozzani, Cappelen, Nicolai and Longo.—*Jour. Amer. Med. Ass'n.*

TREATMENT OF DIPHTHERIA.—There is abundant evidence from many sources as to benefits derived from the serum treatment of this disease. From statistical tables presented at the recent German Surgical Congress by Prof. Krönlein of Zurich, we learn that this disease had been pretty uniformly present in that canton for the last fifteen years. He examined all patients admitted to his wards bacteriologically and in every instance the serum was injected. Since the use of serum has become general the percentage of mortality has greatly decreased. Referring to statistics, he says of 1,336 cases treated before the serum period 554, or 39.4, died, while during the serum period, of 437 cases treated the number of deaths was 55, a fatality of only 12 per cent.

The good effects of the antitoxin treatment were evidenced by the rapid improvement of the general health, decrease of temperature, loosening of croupous membrane, decrease of glandular swelling, absence of tracheal croup and of diphtheritic infection in tracheotomy wounds.—*North American Practitioner.*

ALKALINE REACTION OF THE URINE DURING RESOLUTION IN PNEUMONIA.—Pick, of Prague, in April last, reported a hitherto unnoticed symptom in the urine during pneumonia. This symptom is manifested from twenty-four to forty-eight hours after the crisis, when the stage of resolution is reached. The urine, which up to that time has shown a strongly acid reaction, becomes neutral, and within twenty-four hours often markedly alkaline. This symptom lasts for a day or a day and a half, and then disappears. It has been observed by the author in thirty-one cases out of thirty-eight, and is by him attributed to the absorption of the exudate, which has been shown to contain a large per cent. of sodium.

Rosin, of Berlin, in supporting this theory of the cause of the above symptoms, related the history of a case of migraine

under his observation, in which every attack was followed by a discharge of alcoholic urine heavily loaded with phosphates.—*Pacific Medical Journal.*

FRACTURES OF THE SKULL.—Dr. Pope (*International Journal of Surgery*, April) sums up his experience on this subject as follows: (1) Operate in all cases of fracture of the skull, basilar or compound, and preferably in simple fractures. (2) Expectant treatment is dangerous, permitting injury to the nerve structures. (3) Danger does not exist in fracture *per se*, but in subsequent injury to the nerve elements and tissues. (4) Failure to trephine and immediately remove the existing pressure, depression, hemorrhage, inflammation, or septic infection, may result in the development of focal epilepsy and other cerebral diseases. (5) Little or no danger results from the operation. (6) These rules are doubly applicable to fractures of the base, owing to the danger to vital structures lying there.—*Medical Record.*

THE TREATMENT OF PNEUMONIA WITH SALICYLIC ACID.—Backer (Clinica moderna, November 23, 1898) lauds salicylic acid in the treatment of pneumonia. This drug, according to him, loosens the fibrinous coagulum and causes the expectoration to lose its viscosity. He considers it a true abortive of pneumonia. To children, one grain and a half may be given every hour or every two hours. To adults, seven grains and a half every two or three hours. It is to be dissolved in a small quantity of hot sugar water, milk or chocolate. It is contraindicated in cardiac affections and where there is collapse.—*New York Medical Journal.*

A WONDERFUL OPERATION.—The following veracious story appeared recently in an English weekly journal: "Yes, sir," said the American surgeon, "I have porformed some wonderful operations. Perhaps the most surprising and most successful was after a railway accident. One of our prominent citizens

was absolutely disembowelled by a fragment of the car. I was on the spot. There were some sheep grazing near by, and in a moment's time I had transferred the inside of one of those sheep to the palpitating form of the man and sewed him up!" "That man recovered, sir?" "Yes, sir; and he had lambs in the spring!"—*Med. Record.*

ANTITOXIN IN THE TREATMENT OF DIPHTHERIA.—McCollom from an examination of mortuary statistics, both in this country and in Europe, and from a clinical study of 4200 cases of diphtheria, gives the following conclusions in a paper published in the *Boston Medical and Surgical Journal*:

1. That the death-rate of diphtheria has been reduced to a remarkable degree by the use of antitoxin.

2. That in order to derive full benefit from this agent it is important that it should be given in large doses early in the course of the disease.

3. That antitoxin should be frequently repeated, until the characteristic effect is produced on the diphtheric membrane.

4. That antitoxin does not cause albuminuria, and that it has no effect in producing heart complications in this disease.

5. That the physician who does not use antitoxin in the treatment of diphtheria fails to do his whole duty to his patient. —*Therapeutic Gazette.*

TO REMOVE TATTOO MARKS.—Make a mass, the consistency of dough, with salicylic and glycerine; apply to the tattoo marks, and confine with a compress and strips of adhesive plaster for one week. Then remove the layer of epidermis over the marks and apply salicylic and glycerine as before. It may be necessary to repeat three times, but usually the second application removes the marks.—*Ex.*

IMPACTED CERUMEN.—Peroxide of hydrogen acts rapidly in disintegrating the solid cerumen; in a few minutes after its use the wax can readily be removed from the ear by syringing.—*W. D. Turner in Medical Record.*

PHOSPHATE OF SODA FOR BILIARY LITHIASIS.—Dr. Stanley M. Ward (Journal of Medicine and Science) says that, having had many cases of biliary lithiasis, he finds that if the patient will eschew fats and take a drachm of phosphate of soda in hot water three times daily for six months, then twice for three months, and continue the dose before breakfast for the balance of the year, recurrence is very rare.—*Med. Times.*

PALATABLE WAY TO TAKE COD-LIVER OIL AND CREOSOTE.—When I tell you that I am a cod-liver oil and creosote drinker of over seven years' standing, I am sure you will pardon my dogmatic language when I say that the most palatable way to take these drugs is as follows:

Pour two drachms of cod-liver oil on an ounce and a half of water, then add the required amount of cresote slowly, drop by drop on different parts of the oil.—*Dr. W. Fowler in Intercolonial Med. Journal of Australasia.*

THE STOMACHLESS WOMAN.—Dr. Carl Schlatter, in the *Lancet* for November 19, makes a further report on the case of a woman whose stomach he removed September 6, 1897. According to this report she has continued to do well, has gained in weight, and seems to be enjoying herself. She has been kept in the hospital and under observation, not because it was necessary on her account, but because it was desired to study her case in the interest of physiological and chemical science. The main purpose of the report which Dr. Schlatter makes is to give what investigations have been make with these objects in view and their results. The food she takes is shown by the following diet list, being from two different months: On January 17, a little over four months after the operation, she had milk, 33

fluid ounces, 3 rolls, 3 eggs, soup 3½ fluid ounces, fried sausage 4 ounces, stewed apples 7 ounces, whortleberries 3 ounces, and claret 7 fluid ounces. February 5 she had milk 11½ fluid ounces, 3 rolls, 3 eggs, soup 4 fluid ounces, sweetbreads 10½ ounces, cauliflower 7 ounces, and claret 7 fluid ounces. There is no indications of the return of the carcinomatous trouble.—*Western Medical Review*..

GOUT.—In the discussion of a paper on Lithæmia, read by Dr. A. N. Upshur at the Tri-State Medical Society of Virginia and the Carolinas, Dr. Hunter McGuire is reported in *The Charlotte Medical Journal* as follows:

I ought to be in a position to say something on this subject, for until not long ago I was disabled, and not until very recently I didn't know anything about pathology. I don't believe to-day we know any better how to explain the action of uric acid salt than we did a hundred years ago. I am indebted to the book, the writer referred to Haig (?), for most valuable information on the subject that I never understood until I got hold of that book. I think I understand it now. I never began to get well until I followed the suggestions made by this writer. No one ever tried harder to get rid of anything than I did to get rid of this trouble. No one ever took physic more greedily than I did trying to get well, but the suggestions that this man makes, as soon as I adopted them I began to get better, until to-day so far as I know I am free from gout and can do as much work as I ever did. And his suggestion is very simple. Give up all meat, every variety of meat. I haven't touched meat for many, many months. Give up all coffee, tea, cocoa, because they contain uric acid. Drink milk, eat every variety of vegetable and fruit that you can get hold of. Don't hesitate to eat tomatoes, I eat them whenever I can get hold of them. I don't hesitate to eat an orange. I don't hesitate to drink whiskey when I want it, but fortunately I don't want it very often. Now, that is briefly the way I have recovered my health and gotten rid of this gout. I will suggest another thing, that the nervous system has a little more to do with it than we are disposed to admit. Although I had gout so badly and it lasted so long, attacking my

eyes and making me blind for a little while, preventing my reading for weeks and weeks, although I have had it in both feet at the same time, and my knees were all swollen and deformed, suffering horribly, I haven't got on my fingers or toes a trace of it, I haven't got a trace of uric acid. And my gout usually came when I was run down, when I had too many sick people, when I had what every one of you have had, patients who gave me too much anxiety. Cases incurable I never trouble my mind much after I concluded that nothing could be done, but in cases which could be helped, and a number of them, sometimes eight, ten or a dozen people who would die if I made a mistake, constant anxiety in those cases gave me gout. I never drank wine or beer or anything of the sort, never cared for them in my life, have always been a small eater, always glad to be able to take a small drink of whiskey, and I congratulate myself that I am able to do it now and it does not hurt me. I don't know about strawberries. I don't believe I earned the gout by high living. If I had I would have had lost it, for I have lost everything else that I have earned. It must have been inherited. If it was, it was the only thing that I inherited that I hold on to. I only speak about it because I have had so much personal experience. We might well look and see how much the nervous system has to do in this trouble. It has something more to do with it, I think, than we are usually disposed to admit.

OIL OF WINTERGREEN IN THE TREATMENT OF CHOREA.—According to Lugi (Riforma medica) Professor Bozzolo, who introduced oil of wintergreen as a remedy for rheumatism, has demonstrated also its antipyretic action in erysipelas and scarlet fever and its antiseptic virtues in urinary and pulmonary diseases. In Bozzolo's clinic it is now looked upon as the most

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available of the anti-rheumatics in the treatment of chorea in children. The oil of gaultheria, combined with its own weight of vaseline, is employed locally over painful joints, and not only ameliorates the pain, but also benefits the chorea.—*New York Medical Journal.*

THE SAMUEL D. GROSS PRIZE.—The second quinquennial prize of $1,000, under the will of the late Samuel D. Gross, M. D., will be awarded January 1, 1900. The conditions are that the prize shall be awarded every five years to the author of the best essay, not exceeding 150 printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice, founded upon original investigations, the candidates for the prize to be American citizens. It is expressly stipulated that the successful competitor, who receives the prize, shall publish his essay in book form. and that he shall deposit one copy in the Samuel D. Gross Library of the Philadelphia Academy of Surgery. The essays, which must be written by a single author, in the English language, should be sent to Dr. J. Ewing Mears, 1429 Walnut street, Philadelphia, before Jan. 1, 1900. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers or their agents within one year. The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

NEW METHOD OF DISINFECTION.—According to the *Sanitary Record*, a mixtury of formaldehyde and glycerine is sprayed into a room to be disinfected, until a thick fog results. For 1,000 cubic feet about four pounds of the mixture is needed, Three hours exposure was found suffiicient to kill all germs in the room experimented on, though the test objects were purposely chosen of the most refractory nature. The advantage of adding glycerine to formaldedyde is due to the hygroscopic character and its power of penetrating and adhering.—*N. C. Medical Journal.*

DIABETIC COMA AND ITS TREATMENT.—The *Bulletin Generale de Therapeutique* of September 15, 1898, contains an exhaustive article on this subject by Robin. After discussing the various forms of diabetic coma he endorses the recommendation of Lepine that the following intravenous injection should be used in these cases, namely:

Chloride of Sodium, 1 drachm;
Bicarbonate of Sodium 2½ drachms;
Distilled Water, 1 quart.

In addition we should institute at once in place of the anti-diabetic diet a strict milk diet, and we should aid the elimination of poisons by the intestine by the administration of saline purgatives, of which probably sulphate of sodium is the most efficacious. We may also give full doses by the mouth, amounting to six drachms of the bicarbonate of sodium, to saturate the acids of the body; and should the heart be feeble or irregular we should administer full doses of digitalis and ergotin. The matn indications for treatment under these circumstances are to maintain the action of the nervous system, to aid in the elimination of poisons by the kidneys, intestines, lungs and skin, to render alkaline the liquids of the body and destroy toxines, to maintain the force of the heart, and to relieve gastro-intestinal fermentation.—*Therapeutic Gazette.*

LET HIM GET WELL.—Dr. W. W. Keen, of Philadelphia, discussing appendicitis at the Denver meeting of the A. M. A., concluded his remarks as follows: "I protest against the use of opium, except in rare cases, as it has a tendency to mask the symptoms of the disease and leads the patient to the grave. I protest against the argument of Dr. Niles, that every case ought to be operated upon and the appendix is never to be left. Out of 300 post-mortems on as many bodies it was found that 100 of the individuals had had appendicitis at some time in their lives, and had all recovered from the disease. They all died of some other disease. I challenge the assertion that through surgical operations all but 2 per cent. of the cases can be saved. I challenge any operator in the room to take 100 well persons and operate upon them without killing more than 2 per cent. We all

fail, gentlemen. I do not know why, but we all fail. I do not believe in operating on all cases of appendicitis. I'd rather have a live man with an appendix than a dead one without one. (Applause.) I do not believe with the witty Frenchman that no case is complete without a post-mortem. (Laughter.) If the patient is no worse after forty-eight hours' observation, let him alone: let him get well."—*Western Medical Review.*

TREATMENT OF FISSURED NIPPLES WITH ORTHOFORM.—Maygner and Blondel (*Bull. et mkm. de la societe obstet. et gynacol. de Pa.is*, Nov. 10, 1808) summarize their article as follows-

Orthoform appears to render genuine service in the treatment of fissured nipple, whatever the degree. There are no drawbacks to its free use. Analgesia appears in from one to fifteen minutes after the application of the medicament. Sensibility to suction may return as early as a quarter of an hour, or possibly not until one or two hours have elapsed. Cicatrization is certainly hastened by orthoform. Authors prefer to apply the drug in saturated alcoholic solution.—*Obstetrics.*

REMOVAL OF MOLES.—A very simple procedure will remove moles without having recourse to the knife, says a correspondent. Shave a match or sliver to as fine a point as possible, dip in carbolic acid and lightly touch the mole, care being taken to prevent the acid touching any other portion of the skin. Apply this every three or four days and the mole will gradually disappear, leaving its space clean and healthy.—*Med. Times.*

IN LIGHTER VEIN.—Anxious parent says to the doctor that his daughter, about to be married, is apparently going blind, and is answered: "Go right on with the ceremony; marriage will open her eyes."

DR. H. V. WURDEMANN, of Milwaukee, has succeeded Dr. Casey Wood as editor of the *Annals of Ophthalmology.*

TRUE WORTH OF THE APPENDIX.—The eminent surgeon closed up his pocketbook with a snap on the $100 fee a wealthy patient had just paid him for a successful operation for appendicitis. "Tell me the appendicitis vermiformis is a useless organ."—*Public Health Journal.*

Editorial.

A DISEASE THAT UTTERLY DISREGARDS ANY MEASURES OF SANITATION.

Within the last few weeks variola has begun to assume unpleasant proportions and a disagreeable contingency to the residents of this bailiwick. So far the only foothold it has secured in the State of Tennessee consists in 21 cases in five families, all colored, in the vicinity of Jackson, and a few cases in Memphis. Yet in the States to the east, west, north and south of us, it has been steadily increasing, and is existent in thirty-one States and over 118 localities in this country, according to a recent Public Health Report of the Marine Hospital Bureau.

So far the disease has been characterized by a marked degree of mildness of type, yet it is well known that it increases in severity with continued duration; and no matter how mild, it will always be regarded as a most loathsome and much-to-be-dreaded disease. Rational measures of general sanitation and hygiene, so productive of beneficent results in many other infectious, contagious and epidemic diseases, are absolutely futile in results in visitations of variola. Emperors, kings, queens, princesses and princes, have been its victims in the past, and the palace of the plutocrat offers no more immunity than the hovel of the pauper—our only protection is timely, regular and systematic vaccination.

With the facts before an enlightened public since the days of the immortal Jenner, it is almost incredible that educated people—those possessing a reasonable degree of intelligence—hesitate one moment in availing themselves of so beneficent a measure of protection and marked immunization. The one verified statement that the great German empire, with its 50,000,000 inhabitants, lost 143,000 in 1871 by small-pox before vaccination was made obligatory, and since 1874, when it was made compulsory by legal enactment, only 116 persons annually have fallen victims to a former so dire a malady, is unanswerable. A publication of Dr. W. H. Sanders, State Health Officer of Alabama, gives the following table,

showing that there died annually, from small-pox, to every million of inhabitants:

	Before Vaccination.	After Vaccination
In Sweden.....	2,050	158
In Austria.....	3,095	841
In Trieste.....	14,046	182
In Moravia.....	5,402	255
In Silesia (Austria)..	5,812	198
In Prussia (Eastern)..	3,321	56
In Berlin.....	3,442	176
In Copenhagen.....	3,128	286

Like figures and similar results have been obtained in our own country, and Dr. Ketchum, of Mobile, with fifty years' practical experience in his profession, graphically said:

"What the discovery of steam was to the mechanic arts, what the discovery of the printing press was to the world of letters, what the discovery of electricity was to progressive science, what the discovery of chloroform was to the surgeon's practice, such was the discovery of vaccination to the science of medicine and the cause of humanity."

To which we say not only amen, but, aye, even more—a greater boon, indeed, than all these combined.

In a recent circular issued by Arthur R. Reynolds, M.D., Commissioner of Health of Chicago, we find the following emphatic paragraph:

"No degree of cleanliness of the individual, or of hygiene in the household, or of municipal sanitation, will protect the susceptible against contracting small-pox if exposed to its contagion. The one certain and only safeguard—tested by the experience of the century—is effective vaccination."

And yet, in the face of these and other facts that can be adduced almost without number, there exist such inane, farcical and ridiculous organizations as anti-vaccination societies. That intelligent human beings, with all the facts staring them in the face in this post-Jennerian day, can oppose so beneficial a measure is indeed well-nigh incredible. Pah! We have no patience with them, and can only say, "Quem Deus vult perdere, prius dementat."

In the arm-to-arm vaccination, and in the use of humanized lymph of the earlier days of the vaccination epoch, occasional complaint resulted from causes that have since been determined. The use of bovine virus did much to lessen, and the latest method of preparing that virus, glycerinated and put up in hermetically sealed glass tubes by Messrs. Parke, Davis & Co, of Detroit, Mich., have minimized these occasional disagreeable contingencies and well-nigh relegated them to the past. In our November number of last year we reproduced from *The North American Journal of Diagnosis and Practice* a very graphic description of their very extensive plant, written by the editor of our contemporary, Dr. Powell. Glycerinated vaccine is antiseptic virus—the pulp of the cow-pox vesicles mixed with pure glycerine for the destruction of the comparatively few strepto-

or other bacteria possibly present despite the most careful manipu-
. Glycerine is not a powerful germicide; but it is powerful enough
der germ-free in a short time the vaccine to which it is applied.
rinated vaccine has been employed extensively upon the continent
rope, where it has given unequivocal satisfaction, and in some of
rger American cities, as New York and Chicago. Our municipal
ities, very commendably, have in the latter part of the past month
ted a regular, systematic vaccination of our entire populace, one
ian in each ward being selected to make a house-to-house visitation
tender free vaccination to anyone, the city furnishing his serv-
id vaccine; he is also required to report all who refuse vaccination
do not exhibit a certificate from a reputable physician, or other
ctory evidence that they have been vaccinated, so that they can be
ded against for violation of municipal law. Quite a number have
d to the writer in the last few weeks, and we have been pleased—
elighted—at the satisfactory results with Parke, Davis & Co.'s gly-
ted vaccine.

those who are in the least acquainted with their methods of serum
ction it will be unnecessary for us to state that in the elaboration of
ccine they guard every step with the most uncompromising scrutiny
sure the purity of the product by the most rigid antiseptic and
measures. The heifers before being vaccinated are tested with
ulin. As an additional safeguard the animals are slaughtered as
s the vaccine is collected, and a careful inspection of the carcass is
by their veterinary surgeon and by an experienced meat inspector;
evidences of disease are found the vaccine is destroyed. Further-
each lot of virus is carefully tested in selected cases, and if the
atisfactory and unequivocal results do not ensue the entire lot is
yed.

is a noteworthy fact that manufacturers of vaccine have generally
d those rules of rigid surgical asepsis which have been recognized
are as absolutely necessary when the physician desires to make a
in the healthy skin of his patient. As a result, septic infection
accination has been commonly met with in general practice. The
of the product now offered by them is to produce infection with
w-pox and to avoid the sores and sloughs which naturally follow the
vaccine material carelessly prepared and often loaded with the or-
s of ordinary pus.

e following statements we consider worthy of placing before our
s:

ring my thirty-six years' experience in the practice of medicine
rgery, twelve years of army practice, and four years in public ser-
have performed thousands of vaccinations, in fact have used over
oints put in my hands by the United States Government, and with-
onth I have ordered and used over 500 tubes of the vaccine virus
ed with glycerine from the house of Parke, Davis & Co. I can

truthfully say I have never been so well satisfied with vaccine put up in any way, as with the tubes. The glycerinated vaccine of Parke, Davis & Co. has never failed me in a single instance of primary vaccination."—*Warren E. Day, M.D., Health Officer, Prescott, Arizona.*

"I believe the following will be of interest to vaccine users:

On November 15, November 16 and December 3, I made respectively 25, 27 and 37 primary vaccinations, out of which 4, 0 and 0 were subsequently found to be unsuccessful. This is a total of 87 primary vaccinas tions with 83 successes. The vaccine used was Parke, Davis & Co.'s glycerinated vaccine lymph, which they put up in hermetically sealed tubes.

The particularly noticeable features about this vaccine lymph are its *activity* and *purity*.

All of these vaccinations have been extremely healthy in appearance, not a single one having shown any signs of mixed infection.

The arms were prepared by first being washed with germicidal soap, rinsed with sterile water, then washed off with normal salt solution.—*Geo. W. Moran, B.Sc., M.D., Physician to St. Vincent's Orphan Asylum, Detroit, Mich.*

The conclusion of the circular of Dr. Arthur R. Reynolds, Health Commissioner of Chicago, is so timely and apropos that we give it in full:

"As Commissioner of Health, charged with the protection of health and life, upon which our municipal welfare and prosperity depend, I earnestly urge upon every citizen to see to it that he himself and those dependent upon him are thoroughly and promptly protected against this loathsome pestilence. Parents and guardians cannot escape the charge of blood guiltiness if, failing to secure this protection for their charges, death follows an attack of small-pox—a disease of all diseases the most positively preventable.

"Employers and others having charge of wage-workers, especially garment-makers and textile-fabric handlers, should give this matter attention, from pecuniary considerations if no other. Similarly as to railway employees, who are particularly exposed, and the employees of manufacturing establishments, department stores, etc. It should be made a condition of further employment that all such persons present satisfactory evidence of protection against small-pox by recent successful vaccination or re-vaccination.

"The remembrance of the late small-pox epidemic, that of 1893–4, should be still fresh in the public mind; but few, probably, realize its cost to the community. The 3,076 cases and 1,033 deaths of that epidemic represent, according to the eminent authority, Dr. Benjamin Lee, a money loss of $2,581,000, to which must be added the enormous losses from damage to business, suspension of industries, interruption of travel and traffic, and injury to commercial reputation.

"It only remains to add that the glycerinated vaccine of the Health Department is now at the highest standard of purity and efficiency; that its proper use causes the minimum of discomfort and insures absolute freedom from any danger of infection of other diseases as well as from

the painful 'sore arms,' unsightly scars, and other drawbacks which attended the former use of vaccine 'points.'"

Two papers on glycerinated vaccine in the hands of the Local Government Board of London, England, are reviewed by Dr. J. G. Adami in the January number of the Montreal *Medical Journal.* The writer says: "The admixture of glycerine with the vaccine lymph obtained from the calf destroys all harmful micro-organisms, so that such glycerinated lymph in twenty-eight days can be used with full security—that is, free from dangerous contamination. *The same can be said of no other preparation of lymph at present known to us.* Even when prepared with the greatest care, 'points' are liable to be contaminated—as again is undiluted fluid vaccine lymph put up in sterilized and hermetically sealed tubes. All these forms if tested show abundant cultures of various bacteria, notably of forms indistinguishable from pus-producing micro-organisms."

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that this new preparation will no doubt receive something more than passing notice. We recall the introduction some three years ago of Tono Sumbul Cordial (Wm. R. Warner & Co.).

The rapidity with which it found favor at the hands of the profession is evidence that while a great deal is no doubt due to excellence of the formula, it was largely owing to the fact that all "Warner" preparations have a known therapeutic value and do just what is claimed for them.

Messrs. Warner & Co., introducing Tablet Nervitone, write: "When the indications are for a prescription to correct asthenia, neurasthenia or nerve exhaustion, whether the result of debilitating diseases or excesses, we have in Nervitone Tablets a remedy which will give satisfactory results. Being a combination of well-known nerve tonics and stimulants, Tablet Nervitone will fill a wide field of usefulness in physicians' prescribing." Many of the so-called tonics contain coca and other substances calculated to produce that distressing condition termed the "drug habit," which necessitates a continuance of the drug or a withdrawal of the remedy at the expense of great suffering. Tablet Nervitone should be given a trial.

OSTEOPATHY.—At the regular annual meeting of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee, held in Memphis, December 20, 21 and 22, 1898, the following resolutions were adopted:

"WHEREAS, The medical laws of the various States have been so perverted by political influences as to give legislative sanction to grotesque, ignorant and dangerous sects of pretenders and charlatans; and

"WHEREAS, The privileges granted to one of the most outrageous aberrations, namely, the so-called osteopathy, constitute a disgrace to the States in which the 'osteopaths' are legally intrenched; and

"WHEREAS, A certain William Smith, osteopathist, having been roundly denounced, together with his sect, by Parke, Davis & Co. and the *Medical Age*, now brings suit against both for $25,000 damages; therefore,

Be it Declared the sentiment of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee, that Parke, Davis & Co. and the *Medical Age* are entitled to the sympathy of its members and of all medical practitioners; that we wish and expect them to enjoy a complete triumph in repelling this legal assault; and that wheresoever a powerful house takes a bold stand in opposition to quackery it promotes the interests of legitimate and honorable medicine and the welfare of humanity."

A VERY GRAVE ERROR.—The experience of many of the best men of the profession, not only of the United States but abroad, has established the clinical value of Antikamnia. Among those who have paid high tributes to its value and who occupy positions of great eminence, may be mentioned Dr. J. Acheson Wilkes and Dr. R. J. Blackham, practi-

tioners of London. They have found it of value in the neuralgias and nervous headaches resulting from overwork and mental strain, paroxysmal attacks of sciatica, brow-ague, painful menstruation, la grippe and allied conditions. Indeed, the practitioner who has such cases as the latter come under his observation, who attempts their relief by opiates and stronger drugs when so efficient an agent can be used, which is much less harmful, commits a grave error.

Experience goes to prove that ten-grain doses of Antikamnia in an ounce of sherry wine, taken every two to four hours, will carry the patient through these painful periods with great satisfaction.—*Medical Reprints, London, Eng.*

UNIVERSITY OF TENNESSEE.—At the recent meeting of the Board of Trustees of the University of Tennessee, it was decided that the Medical Department would continue to be located at Nashville, and permission for a new building costing $50,000 was given. The new site selected for the building is more centrally located than was the old building recently burned.

CAMPHOROXOL AND MENTHOXOL.—To destroy pus and prevent its formation, the antiseptic solutions known as comphoroxol and menthoxol are unsurpassed. They are harmless and non-irritating. Applied on gauze as a wet dressing, healing is promoted, the growth of healthy granulations stimulated. The solutions keep well and retain their activity for a long time.

BISOL.—In gastro-intestinal disorders of whatever origin, the administration of Bisol, a soluble bismuth salt, is attended by the best results. It is of great service, also, in the diarrhœa of typhoid, of phthisis, and and in dysentery. As it forms a perfectly clear solution, the remedy is specially applicable in pediatric practice. It also forms a ready means for preparing a more powerful tannate, or salicylate of bismuth, than has been available heretofore.

"THE INFLUENCE OF KRYOFINE is one opposed to the production of fever; it not only acts to reduce a certain temperature, but also decidedly prevents a further rise in temperature when given at the time of day this usually occurs. In Influenza, the subjective symptoms were ameliorated."—DR BRESLER, *Chief Physician to Prov. Heil und Pflege Anstalt, Freiburg.*

"WHILE THE SALICYLATES have long been regarded by the profession as potent anti-rheumatics, for many years I have prescribed them in the form of Tongaline, and have found this the most satisfactory method of doing so, on account of all the salicylic acid which it contains being made from natural oil of wintergreen. I have also found Tongaline the most satisfactory method of administering the other important agents which enter into its composition.

"In rheumatism, neuralgia, nervous headache, gout, sciatica and lumbago, Tongaline may be regarded almost as a specific.

"In grippe and malarial fever, with their concomitant sequelæ, Tongaline is the remedy par excellence, its action is eliminative, decisive and invaluable. In these diseases Tongaline thoroughly eliminates the toxæmia which seems ever present and which forbids convalescence, for after the stage of hyperpyrexia is controlled, quinine and antipyretics are remittent in their effects, ceasing to exert the least appreciable influence on the toxic conditions or in arousing the sluggish and viscid secretions to action. It is at this juncture that Tongaline comes to our aid as an efficient alterative and eliminative."—CHARLES KELLY GARDNER, M.D., *Huntingdon, W. Va.*

BOSTON, Jan. 12, 1889.

GENTLEMEN—I wish to add my testimony to the wonderful results obtained from the use of Bovinine in my practice. I am prescribing it daily, and have yet to find a pathological condition that it will not benefit. I find it particularly applicable to women's and children's troubles and diseases of the stomach and intestines, the weakest stomach being able to retain it. Wishing you the success that your excellent preparation deserves, I am, very truly yours, J. E. KINNEY, M.D.

Warren street, Boston Highlands.

PEPSIN is undoubtedly one of the most valuable digestive agents of our materia medica, provided a good article is used. Robinson's Lime Juice and Pepsin, and Arom. Fluid Pepsin, we can recommend as possessing merit of high order.

The fact that the manufacturers of these palatable preparations use the purest and best pepsin, and that every lot made by them is carefully tested before being offered for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from Pepsin.

WELL KNOWN—WELL LIKED.—The other day the Superintendent of one of the largest city hospitals in this country said to a representative of The Imperial Granum Company, the manufacturers of that reliable dietetic preparation, Imperial Granum: "It is not necessary for your firm

to send any one here to tell me about their product, for I have used it in both hospital and private practice for over twenty-five years, and can hardly believe that even the youngest members of the medical profession do not know of the merits of this well-known and well-liked food for invalids and convalescents."

TONIC APHRODISIAC TABLETS (Wayne's) are manufactured for physicians' presciptions only. The combination of phosphorus, ext. nux vomica, damiana, saw palmetto and cocoa is a very excellent one, and they will be found exceedingly valuable in neurasthenia, general debility, pre-senility, sexual apathy, mental strain, etc. Many of the leading practitioners, having tried them, are unanimous in their commendation.

The DIURETIC ELIXIR, also made by the Wayne Elixir Co., continues to maintain its high degree of appreciation. Frequent use of it for nearly twenty years past only increases my esteem for and reliance on its excellent properties.

SAPODERMIN.—The presence of mercury in an absolutely soluble form characterizes Sapodermin, in this varying from the usual sublimate soap in which the soluble salt is precipitated by the alkali and rendered partly inert. The albuminate of mercury, however, besides being a powerful antiseptic and parasiticide, permits the production of a neutral soap, not irritating but soothing to inflamed surfaces. It is non-poisonous, and in stronger solution an efficient remedy in specific cases. Sapodermin will therefore prove invaluable alike to the operator, the dermatologist, the general practitioner.

OBITUARY—GEORGE H. ROHE, M.D., OF BALTIMORE.—We sincerely regret to announce the sudden death of Dr. Rohe in New Orleans, whither he had gone to attend a meeting. He was a well-known alienist, and the Superintendent of the Maryland State Insane Asylum. He died at the early age of forty-eight years. Dr. Rohe was an excellent writer and a highly-respected member of the medical profession. We have had in the past great pleasure and profit in his society at meetings of the A. M. A. and A. P. H. A., of which he was an honored and active member. His work on State Medicine has been most highly appreciated.

DR. DUNCAN EVE, of Nashville, president, and Dr. Henry E. Tuley, secretary, of the Mississippi Valley Medical Association, spent a day in Chicago recently with Dr. Henry H. N. Moyer, chairman of the Committee of Arrangements, relative to the coming meeting of the Association in Chicago, September 12. Much interest has already been manifested in the meeting, which promises to be a very large one.

Reviews and Book Notices.

A MANUAL OF THE PRACTICE OF MEDICINE. By FREDERICK TAYLOR, M.D., F.R.C.P., Physician to and Lecturer on Medicine at Guy's Hospital; Consulting Physician to the Evalina Hospital for Sick Children; Examiner in Medicine at the University of Durham and to the Royal College of Physicians, and in Materia Medica and Pharmaceutical Chemistry at the University of London. Fifth Edition. 8vo., cloth, pp. 1002. Price $4. J. & A. CHURCHILL, publishers, 7 Great Marlborough street, London, 1898. (Received through courtesy of Messrs. P. Blakiston's Son & Co., Philadelphia.)

In not quite ten years this excellent manual has reached its

fifth edition, each one being a marked improvement on its predecessors, until it now seems well-nigh perfect. This edition has a larger page and clearer type than any of the others, and while it is by no means cumbersome or unwieldy in size, there has been quite an addition of new matter.

The author has devoted marked attention to the discussion of symptoms, to diagnosis, to prognosis and treatment, the most salient and important features needed in "a manual of practice."

It is decidedly an English work, and has reached a standard that is enviable. For the practitioner of medicine or the student who wishes to keep fully up with movements in progressive medicine by our now friendly cousins across the big pond, this manual cannot but be both attractive and interesting, as well as instructive along correct lines of advanced study and thought.

We regret that pressure on our pages prevents a more extended notice, but will conclude by advising any of our friends who want to make an addition to their library not to miss the opportunity of procuring this work, which can readily be done through the well-known medical publishers, P. Blakiston's Son & Co., 1012 Walnut street, Philadelphia.

THE TREATMENT OF WOUNDS: Its Principles and Practice, General and Special. By L. S. PILCHER, A.M., M.D., Surgeon to the Methodist Episcopal Hospital in New York, etc. One volume, 8vo., pp. 466. Profusely Illustrated. Muslin, $3 net. WM. WOOD & Co., New York, 1888.

In 1883 Dr. Pilcher wrote a work on the treatment of wounds which for a long time was an authority on the subject. The many changes in surgical methods, as well as in the firearms and other engines of war, which have taken place since that time, render a new work on the subject necessary.

The present volume embodies all the modern theory and practice in the treatment of this class of injuries, and concisely presents means and methods that will secure the best attainable results.

We make the following extract from the preface in this work: "The stage of novelty and of disputatious discussion as to the fundamental facts of the new surgery has passed. The chief interest of to-day gathers about questions of how to most perfectly bring practice into accord with knowledge, so as to secure the

best attainable results in the ever varying and widely differing conditions in which wounds present themselves for treatment. The aim of the present volume is to concisely present means and methods that shall secure such results."

The book is handsomely and strongly bound, excellently printed on the best quality of paper, and the illustrations well elucidate the text.

A COMPEND OF OBSTETRICS, Especially Adapted to the Use of Medical Students and Physicians. By HENRY G. LANDIS, A.M., M.D., Late Professor of Obstetrics and Diseases of Women in Starling Medical College. Revised and Edited by WM. H. WELLS, M.D., Adjunct Professor of Obstetrics and Diseases of Infants in the Philadelphia Polyclinic, etc. (Quiz Compend No. 5.) 12mo., cloth, pp. 188. Price 80 cents. Sixth Edition. Illustrated. P. BLAKISTON'S SON & Co., publishers, Philadelphia, 1898.

For the sixth time we are called on to notice this excellent work of the late lamented Landis, and can only reiterate our former commendation of his eminently practical series of questions and answers. The revision and editorial supervision of Dr. Wells has added to its original value by keeping it thoroughly up to date.

MANUAL OF DISEASES OF THE SKIN, with an Analysis of Twenty Thousand Consecutive Cases and a Formulary. By L. DUNCAN BULKLEY, A.M., M.D., Physician with New York Skin and Cancer Hospital; Dermatologist to the Randall's Island Hospitals, etc. Fourth Edition, revised and enlarged. 12mo., cloth, pp. 362. THE KNICKERBOCKER PRESS (G. P. Putnam's Sons), New York and London, 1898.

This is not only a valuable work for the student, but a condensed practical work for ready reference by the practitioner. It has been thoroughly revised and much of it rewritten, with the addition of a large amount of new matter relating to diseases not mentioned in former editions. The author's experience in dermatology, and his recognized ability, render words of commendation unnecessary. The diseases are mostly grouped on a pathological basis, and the question of therapeutics is quite full for so small a volume. The revised formulary, the full general index and the index relating to differential diagnosis, will be appreciated.

[illegible] By G. E. [illegible] Professor of Ophthalmology in the Jefferson Medical College. [illegible] Illustrations, two minus of [illegible] pages, with [illegible] and [illegible] chromo-lithographic plates. [illegible] Second Edition, thoroughly revised. [illegible] 925 Walnut street, Philadelphia. Publisher. [illegible]

The work of [illegible] proves of service to both students and practitioners engaged in the study and practice of ophthalmology. The methods of examining the eyes, and the symptoms, diagnosis and treatment of ocular diseases, have received the largest share of attention. The subject-matter has been given a greater detail than is customary in books written for students. Certain illustrations, diagrams and examinations, taken from standard text-books and monographs, which have proved of special service in teaching students, have been incorporated.

The third edition of this work, which has been thoroughly revised and much new matter incorporated, will undoubtedly meet the favorable reception and appreciation that has so justly been accorded its predecessors. It is more than worthy the following commendations accorded the second edition:

"A clearly written, comprehensive manual. One which we can commend to students as a reliable text-book, written with an evident knowledge of the wants of those entering upon the study of this special branch of medical science."—*British Medical Journal.*

"A work that will meet the requirements not only of the specialist, but of the general practitioner, in a rare degree. I am satisfied that unusual success awaits it."—*William Pepper, M. D., Professor of the Theory and Practice of Medicine and Clinical Medicine, University of Pennsylvania.*

DIET AND FOOD, Considered in Relation to Power of Endurance, Training and Athletics. By ALEXANDER HAIG, M.A. and M.D., Oxon., F.R.C.P.; Physician to the Metropolitan Hospital and the Royal Hospital for Children and Women. 12mo, cloth, pp. 83, with 5 illustrations. Price $1. J. & A. CHURCHILL, 7 Great Marlborough street, W., London, publishers, 1899.

Through the courtesy of Messrs. Blakiston's Son & Co. we ave received this excellent little monograph. The able and

erudite author of "Uric Acid as a Factor in the Causation of Disease," has but added to his reputation along lines in which he had most reputably established himself. He very satisfactorily defines "health" as a satisfactory condition of nutrition, strength and power of endurance, and gives us some very practical ideas in regard to waste, nutrition and the albumens of food, their sources, characters, digestibility and the amounts of force and urea derived from their metabolism in the body.

STUDENT'S HISTOLOGY. A Course of Normal Histology for Students and Practitioners of Medicine. By MAURICE N. MILLER, M.D., late Director of the Department of Normal Histology in Loomis' Laboratory of New York. Edited by HERBERT U. WILLIAMS, M.D., Professor of Pathology and Bacteriology, Medical Department University of Buffalo. 8vo, cloth, pp. 259. Third Edition, revised and profusely illustrated. WM. WOOD & Co, 43–47 East Tenth street, New York, publishers, 1898.

A revision of Miller's Microscopy became necessary, partly on account of the advances made in histology during the last ten years, and partly because of the increasing tendency in medical science to devote more time to laboratory studies. Substantially all of the original matter has been retained, although somewhat re-arranged; and where new matter has been added, the attempt has been made to give it the form which was the peculiarity of the original, namely, in being written from the point of the student, and not of the teacher. It is strictly in line with various text-books, and will be found of special value to both students and teachers of histology. So much technique has been introduced as has been found to be of absolute necessity, and no more. The processes for the preparation and exhibition of tissues are generally simple and always practicable,

QUIZ COMPEND No. 4: A Compend of Human Physiology, Especially Adapted for the Use of Medical Students. By ALBERT P. BRUBAKER, M.D., Adjunct Professor of Physiology and Hygiene in the Jefferson Medical College; Professor of Physiology in the Pennsylvania College of Dental Surgery, etc. 12mo, cloth, pp. 266. Price 80 cents. Ninth Edition, revised and enlarged, with New Illustrations and a Table of Physiologic Constants. P. BLAKISTON'S SON & Co., 1012 Walnut street, Philadelphia, publishers, 1899.

This compend, like its co-geners, is based upon the most

popular text-books and the lectures of prominent teachers. The author has had considerable experience as a teacher and attache of Jefferson, and is well acquainted with the special needs of the student. It contains a mass of valuable information nowhere else collected in so condensed, practical shape. The large number of illustrations are inserted where they will prove most efficacious.

AN AMERICAN TEXT-BOOK OF DISEASES OF THE EYE, EAR, NOSE AND THROAT. Edited by G. E. DE SCHWEINITZ, A.M., M.D., Professor of Ophthalmology in the Jefferson Medical College; Ophthalmologist to the Philadelphia Polyclinic, etc.; and B. ALEX. RANDALL, M.A., M.D., Ph.D., Clinical Professor of Diseases of the Ear in the University of Pennsylvania; Professor of Diseases of the Ear in the Philadelphia Polyclinic, etc. Royal 8vo, cloth, pp. 1251, illustrated with 766 engravings, 59 in colors, Price $7. W. B. SAUNDERS, 925 Walnut street, Philadelphia, publisher, 1899.

With the aid of 60 contributors the editors have given us a very handsome, complete and valuable treatise on the eye, ear, nose and throat. Each author, all of whom are recognized as authorities in their various departments, being responsible for the statements and opinions in his department; the occasional editorial comments being always suitably marked.

It has been prepared for the use of students and practitioners of medicine and surgery in general, as well as for those specially interested in the various important subjects of which it treats, with the hope that it will take rank with the other handsome and valuable volumes of the American Text-Book Series, which have been so well received by the profession, which have demonstrated their worth and have had their well-merited reward in their universal appreciation wherever known.

The eye is considered fully in twenty-four sections by a like number of authors; the ear in thirteen sections by fourteen authors; while diseases of the nose and throat are described in twenty sections by nineteen authors. Special articles on the standards of form and color-vision required in railway service; the Roentgen rays in ophthalmic surgery; the practice of ophthalmic operations on animals' eyes; the most important micro-organisms having etiological relationship to ocular disorders, etc., are features in this work not usually found in text-books.

It is essentially a text-book, and a volume of reference as well, to which the practioner may turn and find a series of articles written by men who are authorities on the subjects considered by them.

By the collaboration method "the student gains tbe point of view of a number of teachers, reaping, in a measure, the same benefit as would be obtained by following the courses of instruction under different teachers."

The work, embracing the closely-related organs of the eye, ear, nose and throat, makes a special claim to favor based on an encyclopedic, authoritative and practical treatment of the subjects.

A TEXT-BOOK ON MECHANO-THERAPY (Massage and Gymnastics), Especially for the Use of Students and Trained Nurses. By AXEL V. GRAFSTROM, B.Sc., M.D., Late House Physician, City Hospital, Blackwell's Island, New York; Late Lieutenant in the Royal Swedish Army, etc. 12mo., pp. 139, with Eleven Pen and Ink Sketches by the Author. Price $1. W. B. SAUNDERS, publisher, 925 Walnut street, Philadelphia, 1899.

The subject of massage is here in brief compass, very thoroughly considered, and practitioners who have not availed themselves of the advantages to be obtained by mechano-therapy, as well as students and nurses, should procure it. The field of regular medicine should leave no corner unsearched and untried in the effort to obtain therapeutical aid.

THE PHONENDOSCOPE AND ITS PRACTICAL APPLICATION. By PROF AURELIO BIANCHI, of Parma. Translated by A. GEORGE BAKER, A.M., M.D. 8vo., cloth, pp. 77, with 37 Illustrations. Price 55 cents, which includes postage. GEO. P. PILLING & SON, publishers, Philadelphia, 1898.

This is a highly interesting work on Phonendoscopy, and should be in the hands of every progressive physician. Prof. Bazzi, in constructing and developing this instrument, put into his work his profound knowledge of physical laws; and the result is that for niceties of discrimination we have an instrument as far in advance of the latest improved Camman as that was ahead of the simple roll of paper first used by the illustrious Laennec.

THREE THOUSAND QUESTIONS ON MEDICAL SUBJECTS, Arranged for Self-Examination, with proper reference to Standard Works in which the correct replies will be found. 32mo, cloth, pp. 189. Price 10 cents. P. BLAKISTON'S SON & Co., 1012 Walnut street, Philadelphia, 1899.

This little brochure, prepared by a medical teacher and writer of experience, is specially adapted to the wants of the medical student, by which he can successfully and satisfactorily examine himself on all the important branches. The questions are eminently practical, and such as would be most likely to be used in the quiz class or examination room. Numerical reference to the sixteen numbers of Quiz Compends published by this house, by which correct answers can be found, is a feature of the work.

RAILWAY SURGERY: A Hand-Book on the Management of Injuries. By CLINTON B. HERRICK, M.D., Troy, N.Y.; Lecturer in Clinical Surgery, Albany Medical College; Attending Surgeon to the Troy Hospital and the House of Good Shepherd; Consulting Surgeon to the Leonard Hospital; Surgeon to the Delaware & Hudson and the Fitchburg Railways; President of the New York State Association of Railway Surgeons. 8vo, cloth, pp. 265. Profusely illustrated by many original engravings. WM. WOOD & Co., publishers, 43, 45 and 47 East Tenth street, New York, 1899.

There has long been a demand for a work devoted to the surgery cases resulting from railway accidents. This demand the present work will, it is believed, supply.

The author is eminently qualified to write a work on this subject, having had long experience in the class of injuries treated of, as well as in the administration of this important department of railway management.

The book is clear, concise and practical. The very numerous illustrations, which have all been made especially for the work, are from photographs taken under the author's supervision, and are of remarkable excellence.

"THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION."—At a meeting of the Board of Trustees of the American Medical Association, held in Chicago, January 2, the selection of an editor to succeed the late Dr. John H. Hamilton was postponed until a future meeting, and in the meantime the *Journal* will be issued under the direction of Dr. Truman W. Miller, Chairman of the Publication Committee of the Association.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

DEVOTED TO MEDICINE AND SURGERY.

SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.

DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

Vol. XXI. NASHVILLE, APRIL, 1899. No. 4.

Clinical Reports.

CLINICAL LECTURE*

BY DUNCAN EVE, M.D., NASHVILLE, TENN.,

Professor of Surgery, and Clinical Surgery, Medical Department Vanderbilt University.

SENILE GANGRENE.

Gentlemen:—The first case which we present to you this morning is quite an interesting one. This old colored man evidently has been suffering from an atheromatous degeneration of his arterial system, which has in localities become calcareous. We have, as you will see, the right foot affected with senile gangrene, involving not only the upper surface but the lower surface as well, and extending to the medio-tarsal joint. He has, as

*Delivered at the City Hospital, Feb'y 23, 1899, and reported by Albert Roberts, stenographer.

[illegible]

[illegible] CONSULTATION. [illegible] never [illegible] from inflammatory [illegible] the remote, pre- [illegible] that he has had [illegible] one eye, and has [illegible] about seventy-five [illegible]

We propose [illegible] the only chance for [illegible] gangrenous limb above [illegible] as soon as he is anesthetized. We propose [illegible] as possible, on account of his [illegible] therefore select the circular method. We [illegible] afford him a better stump, and the parts will heal the more speedily.

The leg being now thoroughly scrubbed and cleansed and rendered as aseptic as practicable, we will begin this amputation by making a circular incision through the skin by a circular sweep of the knife and turn it up like a cuff. We next cut through the muscular structures about two inches higher up, and then first divide the fibula about one-fourth of an inch higher than I subsequently do the tibia. The limb having been severed, I will ligate the vessels and then bring the flaps together in the longest diameter of the limb, which is antero-posteriorly, and which, while he is in a recumbent position, will also favor drainage.

I regret to say that I am compelled, from the condition of the posterior tibial artery —which is quite apparent, it being diseased, brittle, and breaking off, as you see under the pressure of my ligature to re-amputate this limb higher up. We do not know whether or not by going higher up that we will find the vessels in any better condition, yet we trust to do so, as it is absolutely impossible to ligate satisfactorily at the point where we have amputated. We will, therefore, proceed to re-amputate this limb at the junction of the upper with the middle third of the

leg. We are afraid of going up above the knee, from the fact of increasing the danger of shock, and therefore make the amputation at this point, preferring as we will lateral flaps, somewhat after the method of Sedillot's plan, although in this case we will make our flaps of equal length. Now, you will notice that the vessels are in a very much better condition, and I feel quite sure we can make a satisfactory application of the ligatures, which being done, we desire in this case to use a drainage tube, which we will apply through the flaps, as you will notice, and I trust that this old man may recover, although I must be excused for expressing a doubtful prognosis.

It may be wondered by you why I did not practice this amputation first, from the fact that other of his arteries could be determined to be in a calcareous condition. This I may say is especially so of the radials, but the line of demarcation having been established so thoroughly above the medio-tarsal joint of the foot, and in so old a patient, it is desired to practice amputation as far off from the body as possible, knowing that the further off the less the danger is. In this case our first amputation would have been preferably a Syme's of the ankle joint, had it not been for the gangrenous spot on the heel. Of course, having noticed in the amputation we first made that the posterior tibial artery was severed so readily by the pressure of our ligature, we had nothing else left us but to resort to an amputation higher up. I believe in the amputation that we have finally made at the upper portion of the leg, the vessel is as healthy as we perhaps would find higher up in the thigh. His arterial system, as we stated at the commencement, is badly damaged, and it is for that reason that the outlook is unfavorable.

[The result of this case at the time of going to press with this article, a little over 20 days after the operation, much to the surprise of all, and contrary to the unfavorable prognosis of the operator, is quite satisfactory; he is not only living, but is doing well, with every prospect of recovery, the stump being almost completely healed.—ED.]

HERNIOTOMY WITH PECLIAR COMPLICATION—APPENDIX ATTACHED TO TESTICLE.

The next case that we present is a negro boy three years old,

suffering, as you will notice, with double oblique inguinal hernia, which is of congenital origin. As you perhaps know, it is exceedingly difficult, if not impossible, to adjust a truss that will even tolerably prevent the descent of a hernia in a child so young as this one—in fact, all methods that have been heretofore practiced upon him have failed to keep up his hernias; we therefore regard the case, even in one so young, a justifiable one for a radical cure operation. We desire, on account of the youth of this patient, to make, however, the operations on the two sides at distinct periods. We shall take the right side first, and the operation to make is a Bassini's, which, as you know, is obliterating the old canal and making a new one, in which the cord is placed. We shall make an incision about three inches in length parallel to Poupart's ligament and extending just below the external abdominal ring, afterwards dissecting up the structures forming canal. We desire to state in this case, the hernia is reducible, and therefore we will not have, as in ordinary operations, the sac and its contents to deal with. We will want here, after reducing the hernia and exposing the canal, to lift the spermatic cord and hold it out of the way at the upper angle of the wound; then to suture the border of the rectus muscle and the edges of the internal oblique and the transversalis muscle and transversalis fascia to the shelving portion of Poupart's ligament, obliterating the old canal, and thus forming the floor of the new canal, upon which will be placed the cord, and then the aponeurosis of the external oblique muscle will sutured over the cord, these procedures being maintained by sutures, and the skin closed as usual.

The condition of the patient having been previously attended to, the parts rendered aseptic, and anesthesia produced, we will now proceed with the herniotomy in the regular steps as described. Having cut down and opened up the inguinal canal, in attempting to lift up the cord, you will here observe attached alongside the same a very unusual structure, which resembles very much an attenuated intestine. We will first detach this by beginning at is lower end and commence there to free it. You will have seen that it apparently dips down into the tunica vaginalis testis, and seems thoroughly agglutinated to the testicle-

and for that reason we will be compelled to thoroughly detach it in order that we may dissect it loose from the spermatic cord, which it seems to be intimately connected with along its entire course. Having thus completed this separation; we desire to see what it is attached to in the cavity of the abdomen. Making gentle traction upon this structure, we have in view plainly the caput cæci, and unmistakably pronounce this substance we have thus detached to be the appendix vermiformis, a very extraordinary and unusual condition indeed. It is true Coley and some others made reports of a few cases, like the very interesting one now before us, but this appendix, so large and so long, the size of an adult's, could hardly have been expected in a child so young. We are glad that it has been your privilege to witness an anomaly of this kind—my first and perhaps the only one I will ever have the privilege of examining.

We will now remove this appendix by cutting it off between two ligatures previously applied close to the cæcum, and then return the stump and exposed portion of the gut into the abdominal cavity. This being done, I place the cord on the floor of the new inguinal canal formed by the tissues and in the way we have mentioned, and cover the same with the aponeurosis of the external oblique muscle, and finally bring the skin into apposition as described. This case is an unusual one, and I am gratified at having an opportunity of bringing it before you.

[The subsequent result of this case was also most satisfactory, as at the time of going to press with this article the little patient had entirely recovered from the operation, the wound having healed without the development of a single drop of pus; and the second operation on the other side will soon be resorted to with the hope that it will result as satisfactorily as the first one.—Ed.]

Surgical Sins.—(1) Operating in hopeless cases. (2) Delaying opinion as to the gravity of a disease. (3) Failure to operate in depressed fracture of the skull. (4) Pretending to be clean. (5) Undercharging in order to secure an operation. (6) Stealing patients. (7) Representing capital operations as trifling. (8) Keeping patients too long under chloroform *ariston metron*. Unwise speed is bad; chronic surgery is worse.—*Emory Lanphear*.

Original Communications.

ALBUMINATE OF IRON.

BY L. H. WATSON, M.D., CHICAGO, ILL.

At least one drug has stood the test of time, and physicians of our day are using the same medicine used by Hippocrates and Galen.

Even in prehistoric times we are told of the use of iron. In the dim ages of the past, the fable runs, Iphicles appealed to Melampus, a physician, for a remedy for impotency. Melampus' advice was for him to procure a rusty sword, scrape off the rusty scales, put them in good wine and drink it at his meals. Not a bad prescription, that, for modern times!

No drug has been better advertised than iron. "Beef, wine and iron" is the shibboleth modern pharmacists conjure with. The lay public, always credulous, delights in the sonorous sound of beef, wine and iron. It represents to them health, strength and vitality. The merit of iron as a medicine has never been questioned by physicians, but we have learned much from modern research in regard to its use, and much in regard to the combinations which give us the best results.

Iron exists in the body in the form of an albuminate. Physiological chemists tell us that when iron enters the stomach it is not fitted for resorption unless in the form in which it exists in the body of the fœtus in utero, an albuminate. "It is quite probable," says the *American Journal of Chemistry*, "that iron is quite generally present in the animal tissues in connection with nuclein compounds," but its existence in hæmoglobin is noteworthy, because it has long been known and because the important property of combining with oxygen seems to be connected with the presence of this element. According to analyses made,

the proportion varies somewhat in different animals from 0.335 to 0.47 per cent. In the circulating fluid we find three proteids, fibrinogen, serum globulin and serum albumen. Serum albumen belongs to the group of native albumens, and the source and origin of the iron supply we find in the body, is the proteid substances of our food. These proteid substances transformed into peptones and proteoses, go to form serum album, the main source of tissue nourishment.

Bunge, speaking of the therapeutic action of iron compounds, says—referring to the important part played by hæmaglobin in the animal economy—"it is very improbable that iron in the form of inorganic salts introduced into the body, becomes converted into hæmoglobin by synthesis." Although the absolute amount of iron in the system is very small, not more than from three to four grammes, its presence is essential that proper oxygenation of the tissues and metabolism take place. Iron is not alone found in the blood, but in the liver, spleen and kidneys.

The liver particularly has a certain amount of hæmatin stored away, which partially supplies any waste of the hæmoglobin. Feeding iron in large quantities does not increase the amount found in the urine, says Forster, *Zeitschrift fur Biol.*, 1803. He fed a dog 38 days with washed meat containing 0.93 grammes of iron and recovered from the fæces 3.59 grammes. Here was a loss of 2.66 grammes from the body, although iron was fed. There was none in the urine, however.

Stockmann has shown that the amount of iron ingested each day in an ordinary dietary only amounts to from 6 to 11 milligrammes (1-11 to $\frac{1}{6}$ gr.) while the daily loss is as much. As the intake is so small, a reserve is provided, as I have earlier said, by the liver, whose cells rapidly take up any excess of the metal when given in an absorbable form like an albuminate. Feralboid, for instance, of which the dose is exceedingly small, and perhaps as readily absorbable as any form of the albuminate on the market (the dose being $\frac{1}{6}$ to $\frac{1}{8}$ gr.), would furnish all the iron necessary without overloading the liver or irritating the gastro-intestinal tract, which is a very important point in treating chlorosis, when there is usually gastric irritation. and it is doubtful if iron is absorbed by the intestines. So long ago as 1824 Wohler advanced this opinion, and Kletzinsky, in 1854

experimenting upon himself and finding in his fæces as much iron as he swallowed, concluded it is. When organic iron is eliminated from the diet the hæmoglobin falls rapidly, but the red corpuscles are not diminished in number, although, as in chlorosis, there are many pale, nucleated cells.

The liver takes up any excess of the metal. Zaleski and Vay showed that the iron secreted by the liver combines with the nucleo-albumens and can only be separated by incineration; and Bunge has shown that artificial peptic digestion of the yolk of eggs yields a nuclein containing iron. As the yolk contains no hæmoglobin, and as living protoplasm in vitro can enter from without, the iron-holding nuclein must furnish the iron for the hæmoglobin of the chick. This nuclein he calls hæmatogen.

As iron is an integral constituent of hæmoglobin, and indispensable for the conveyance of oxygen, so also it is an indispensable constituent of food. In iron starvation iron is evidently eliminated, even though in diminished amounts. As the iron salts are but slightly absorbed from the intestines, it is a question if this small absorption has any appreciable value.

The iron we use, the iron which furnishes the supply needed by the hæmoglobin, we gain through the food in the form of the proteids. In using iron as a medicine we must select one possessing as nearly as possible a form which resembles the hæmatogen of Bunge. We might almost call food an iron, so nearly in its physical aspect does it approach the form in which iron is found in blood and tissues. According to Chesta (*Archiv. fur experimentelle Path. und Pharmak.*, 1897), the organic combination of iron with albuminoid matter is necessary to ensure its absorption. Ten dogs experimented on with soup, made of glucose and distilled water, were found to absorb the iron in the form of an albuminate, but not inorganic iron. We can only conclude from these numerous experiments made by leading physiological chemists that of all the iron compounds the albuminate is the best when iron must be given in case of iron poverty.

The great importance of maintaining a normal percentage of iron in the blood is best seen when the latter is diminished from any cause. In such cases we have anæmia and chlorosis. In chlorosis every function is disturbed. Profound mental depres-

sion often exists; the patient is disinclined to work, the muscles are weak, the face pale and waxy; there is a venous "hum" in the neck. Slow, shallow respiration, with active fermentation in stomach and bowels. When properly treated with iron all this changes. In most cases of chlorosis we find the gastric mucosa in a catarrhal state; washing of the stomach is often necessary before administering food and iron. It is readily seen that iron salts as ordinarily given will only increase the gastric irritation, and the iron will pass off by the bowels in the form of a diarrhœa, or obstinate constipation may be the result. We cannot be too careful in these cases of chlorosis to ascertain if there be any evidences of ulcers ventriculi. We may find our indigestible iron salts will cause more harm than we can readily repair. In these cases especially I use feralboid in doses of one-third of a grain. It is not astringent, does not irritate a sensitive membrane, and is readily assimilated. In all forms of oligocythæmia, then, feralboid will undoubtedly give us the nearest approach to an easily assimilable form of iron, when we can use iron, and the splendid results in renewing the lost hæmoglobin of the blood corpuscles.

Only recently I have seen its efficacy in a case of chlorosis. The young lady had previously been under my care, and a continued use of iron in various inorganic forms had not benefited her. The result of the use of iron albuminate was remarkable, and at this writing the color is beginning to show itself in the cheeks, and the weak, piping voice, so characteristic of chlorosis, is being replaced by a firm, steady tone. I can only conclude by saying: *Nullum ferrum nisi albuminatum.*

Translation,

CHLOROSIS.

BY DR. S. ASCHER, HAMBURG, GERMANY.

Although chlorosis in its typical form, which occurs especially in females at the time of puberty, is generally amen-

able to medical treatment, there are cases in which all our efforts to effect a cure are unattended with successful results. We are inclined in such cases to call to mind the explanation given by Virchow, who assumes that chlorosis frequently depends upon a congenital narrowing of the arteries; yet this explanation is of little aid to the practical physician. If we remember that the action of iron—*our panacea in chlorosis*—is yet a mooted question, and that doubt still exists as to whether iron is capable of absorption by the stomach or intestines, it is natural that we should welcome preparations which promise to give better results than those in previous use.

It is well known that in the hæmoglobin of the red corpuscles *manganese* is constantly found in connection with iron. Opinions have always been divided as to the significance of manganese in the blood, as regards the question whether manganese is really a constant constituent of hæmoglobin or an occasional one. We know that the function of the red corpuscles to take up oxygen is chiefly attributable to the presence of iron, but an active part in this direction has also been attributed to manganese. While in chloride of iron one-third of the chlorine is active, this property belongs to a still greater extent to manganese chloride, a combination of chlorine and manganese corresponding to that of chlorine and iron. Iron chloride is a much more stable combination than manganese chloride, which decomposes even at ordinary temperatures and gives off one-half of its chlorine; it is, therefore, *quantitatively more active than iron. Manganese* as a constituent of the blood exerts a *stronger polarising effect upon the oxygen* and gives off the latter more readily than iron.

Manganese is therefore a more powerful oxidising agent than iron, and, absorbed into the body, will exert an energetic assimilative action.

Joh. Kugler, in 1838, was the first to recommend the manganese salts in scrofulosis. He made the observation that persons who handled manganese oxide in a chlorine bleachery enjoyed an immunity from diseases of the skin, bones and glands. In 1844 Hannan found a diminution of *manganese* in scrofulosis, and to a still greater extent in anæmia and chlorosis. In chlorosis he found that the quantity of iron was sometimes chiefly di-

minished, and sometimes that of managanese. *He therefore distinguished chlorosis from lack of iron and manganese.*

Although this schematic classification cannot be accepted, other investigators of more recent times have established a connection between chlorosis and a deficiency of the quantity of *manganese* in the hæmoglobin.

In 1852 Petrequin recommended *manganese* in combination with iron. He maintained that in all cases in which iron is indicated but proves ineffective, *there is a deficiency of manganese in the blood.* Among recent authors, Ruhle, of Bonn, has warmly recommended the *combination of manganese with iron* in the treatment of chlorosis, and lately *manganese* has been employed with much success for amenorrhœa in young persons between the ages of eighteen and twenty years.

Notwithstanding these high commendations from various sources, *manganese* was not generally adopted in the treatment of chlorosis, and in cases where iron failed to act resort was had to purely dietetic measures. *The reason for this was that no preparation existed in which iron was combined with manganese in a readily absorbable form.* Such a preparation, however, is Gude's Pepto-Mangan, and the results obtained from its use by myself *and others are exceedingly promising.*

Gude's Pepto-Mangan has been tried by me and a few colleagues in various diseases associated with a depreciated condition of the blood, altogether in *eighty cases*, and in the following I will give a few exact data concerning the observation thus far made by us.

In the simple chlorosis of females during the period of puberty we have employed Gude's Pepto-Mangan in about thirty cases with uniformly good results. The remedy was always well borne, digestive disturbances were never observed, the marked symptoms of headache, vertigo, palpitation of the heart and loss of appetite were improved within a few weeks. The bodily weight increased by one-half-kilogramme (about one pound). Among the histories of cases at hand the following appear especially noteworthy:

Miss Sched, aged 22, suffered from œdema of the legs, general weakness, marked anæmia; menses absent for several years. Prescribed rest, vigorous diet, massage, and Gude's Pepto-Man-

n three times daily. After six weeks' treatment œdema disap-
ared, menses returned, patient felt better, had better color.
our weeks later menses became abundant, although Pepto-Man-
n was no longer employed.

Miss R., aged 28, seamstress, marked anæmia, nervous dys-
psia, fluor albus. Besides massage, rest, etc., Gude's Pepto-
angan, one teaspoonful thrice daily. After three weeks, fluor
appeared, menstruation more abundant, patient's condition
rceptibly improved. The disagreeable backache had ceased,
petite and condition of bowels normal.

Miss Clara F., aged 25, weight 52.5 kilogrammes (about 110
unds); great disturbance of nutrition and anæmia; had suf-
red for five years from amenorrhœa, nervous dyspepsia, general
urasthenia, and nervousness; complexion sallow owing to con-
pation. Gude's Pepto-Mangan administered (altogether 1,100
ammes, 36 to 37 ounces). Result very favorable; weight in-
eased one-half killogramme (about one pound) every week, ap-
arance excellent, general condition much improved; constipa-
n relieved by extract frangul. fluid. During the eighth week
enses returned; headache and stomach troubles have disap-
ared; patient has great hopes of perfect restoration to health.

This preparation also proved very serviceable in cases of
æmia associated with more or less marked scrofulosis. The
scesses of the skin healed, eczema of undoubted scrofulous
aracter disappeared. The following case is characteristic:

Margaret G., aged 12, a weak, anæmic and scrofulous girl,
d suffered repeatedly from tonsilitis, coryza, anorexia, glandu-
swellings, and had a pale and sickly appearance. Prescribed
a period of six months three baths containing Kreuznach
ther-lye thrice weekly, and Gude's Pepto-Mangan, one tea-
onful thrice daily. In all 1,000 grammes (two pounds)
the liquor were used. The girl now looks well, healthy com-
xion, red cheeks and lips, appetite good, swelling of glands
s almost entirely disappeared.

I have further employed the Gude's Pepto-Mangan in that
m of anæmia which is found in young women as a complica-
n of uterine trouble or as consequence of profuse loss of blood
n repeated abortions or child-births. The effect was always
iformly good. The patients, who belonged for the most par

to the working class, after three to four weeks' use of the Pepto-Mangan were able to resume work (although their nutrition could only be slightly improved), and were able to accomplish as much as formerly.

It is well known that during the course of chronic malaria marked anæmia develops, which is extremely obstinate to treatment and frequently defeats all efforts to effect a cure. Even after the attacks of fever have subsided the anæmia quite often persists for a long time, and the patient becomes greatly reduced in health.

In this condition, where, as I have said, other preparations of iron frequently leave us in the lurch, Gude's Pepto-Mangan has rendered us good service. We have had occasion to employ this remedy sixteen times in anæmia following malaria, and report the following two cases by way of illustration:

Margaret Sch., aged 26, unmarried, scrofulous tumors of the neck, anæmia following malaria, gastric catarrh; bodily weight 53 kilogrammes (about 122 pounds). Duration of treatment, two months; 800 grammes of Pepto-Mangan used with material and continuous improvement. Vomiting and headache have disappeared, appetite good, increase of weight two kilogrammes (four pounds).

Bertha Pr., aged 10 years, 20.5 kilogrammes (about 43 pounds), marked anæmia after malaria and scarlatina, diphtheria. Five hundred grammes (one pint) of Gude's Pepto-Mangan administered in six weeks. Considerable improvement of the general condition. The patient had so much improved that treatment was discontinued, thinking it no longer necessary. Increase of weight 1.5 kilogrammes (three pounds).

That Gude's Pepto-Mangan is also an excellent remedy for children is demonstrated by the above observations, as well as the following one:

Annie and Willie D , twins, 2¾ years old. Rickety, pale and unhealthy color of face, appetite poor. Gude's Pepto-Mangan in wine, one teaspoonful thrice daily, altogether 300 grammes (ten ounces) used. The children take it gladly and it is well borne. Appetite has improved.

Finally, it may be mentioned that I have tried the Pepto-Mangan in several cases of pulmonary tuberculosis. Of course,

the effect here was only relative, yet frequently we were able to improve the appetite and effect a slight gain in weight.

In the foregoing remarks I have somewhat in detail given my experience with Gude's Pepto-Mangan, and I have done this because I am convinced that it is worth while to institute further trials with this preparation. The observations thus far made were very encouraging. I will not attempt to define what part manganese plays in the new preparation. At any rate it appears that, compared with other ferruginous preparations, Gude's Pepto-Mangan has a better and more certain effect, and is characterized by the fact that it does not produce disturbance of the digestive tract. It would be interesting to determine by experimentation that under the use of this remedy the quantity of manganese in the blood is actually increased. Such an experiment would deffnitely prove that Hannan's theory of chlorosis based upon deficiency of iron and manganese in the blood is perfectly correct.—*From the Allgemeine Medizin. Central Zeitung.*

Abstracts.

TREATMENT OF HARELIP AND CLEFT PALATE.*

This much-discussed topic continues to be the subject of a good deal of doubt in many minds as to when and how to operate for the various conditions that present themselves. Many of the procedures necessary are entirely within range of the general practitioner, but there always remains a feeling of hesitation as to the methods most advisable to employ, and the most suitable time for operation. Towards solving such doubts an authoritative review of the recent literature of the subject, and conclusive statements as to what seems best in the therapeutic sugges-

*From "Progressive Medicine, a Quarterly Digest of New Methods, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by H. A. Hare, M. D. Vol. I, No. 1, March, 1899. Lea Brothers & Co., Philadelphia.

tions that have been recently offered by various writers will be the greatest value to the busy practitioner.

Such a review of the treatment of Harelip and Cleft Palate is given by Dr. J. Chalmers DaCosta, in "*Progressive Medicine*," the new Quarterly Review of Advances in Medicine, of which Professor Hare is the editor. From it we gather that the tendency is more and more towards early operation. The third or fourth month used to be considered the earliest suitable time to operate. Murray now counsels operation in the fourth week; Mumford and Heath think it should be undertaken not later than from the sixth to the eighth week. Where cleft palate exists it is not operated upon so early. The harelip is operated upon alone, and the persistent pressure made by the closed lip helps to lessen the gap in the growing bone. The operation on the cleft palate is put off for a while, but this, too, not nearly so long as it used to be. If the closure of the defect is delayed until the child has learned to talk, the peculiarities of speech, especially the offensive nasal character, will never be corrected. The authorities are agreed, then, that a cleft in the soft palate should be closed about the sixth month, and in the hard palate during the second year.

The practical suggestions collected from the recent literature of the subject by Dr. DaCosta are very valuable to the ordinary practitiouer. Space will permit us to give but a few of them. The use of the knife in operation rather than the scissors, because the later crushes the tissues more, leaving its vitality impaired, especially at the edges where this is so important for subsequent union; the avoidance of pins or heavy sutures in securing proper apposition after the operation is advised, though these are faults of technique in this matter that we fear have been so ground into the present generation by text-book and teacher that failures of union due to these crude early methods will still continue to be frequent. The suggestion by Mumford as to anchoring the nares with shotted wire will remove a very common cause of failure due to the child's inevitable tendency to "turn up it's nose" at and after the proceedings.

In double harelip it is advised to remove the intermaxillary bone by sub-periosteal operation a week before operation on the lip. If left, it is liable to undergo necrosis. Its removal leads

[illegible] the nose be re-
[illegible] that if the nose side of the
[illegible] the dimensions for
[illegible] we have these pre-
[illegible] which are some-
[illegible] which it is easy to
[illegible] the chin is in the best possible health;
[illegible] and enlarged tonsils before ope-
rating, [illegible] possible in the weather, so that
the [illegible] The neglect to
[illegible] as carious teeth and those
harbouring [illegible] causes of adenoids and en-
larged tonsils, [illegible] of a good many of the
failures in [illegible] resection.

THE VITALITY OF EPITHELIAL CELLS, AND THE ETIOLOGY OF CANCER.*

What the nature of the irritant may be that causes the localized overgrowth of epithelial cells which we call cancer, we are yet no nearer knowing than we were before the demonstration of its exact pathology, more than half a century ago. Notwithstanding all the claims that have been made of the causal influence of external biologic factors, parasites from bacteria, and fungi, schizomycetes, and blastomycetes to various forms of animal parasites, gregarines and protozoa generally, we are no nearer the solution of the problem than we were before.

Of late the subject has been approached from the other side, the essential vitality of epithelial cells and their reaction to various irritants, and some most interesting results have been obtained by various observers. In Dr. Hektoen's review of this subject for the first number of *Progressive Medicine* (the advance sheets of which are in our hands), we find some striking observa-

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* From "Progressive Medicine," a Quarterly Digest of New Methods, Discoveries and Improvements in the Medical and Surgical Sciences. Vol. I. No. 1. March, 1899. Edited by Hobart A. Hare, M.D. Lea Brothers & Co., New York and Philadelphia.

tions on the subject collated! Ljunggren, a Scandinavian physician, for instance, found to his surprise that he could preserve carefully sterilized bits of human skin in sterile human ascitic fluid for months, and that the cells of the tissues retained their vitality. Three months after their removal from the body the cells of the deeper layers showed well stained nuclei and good protoplasmic structure. Successful transplantation was made with pieces kept in such sterile fluid for a month. Small pieces of the transplanted skin were removed at varying intervals, and it was found that a marked proliferation of epithelial cells, showing many nuclear figures, had occurred. Special precautions were taken, which absolutely assured the absence of cells that might have grown in from the surrounding cutaneous margin and so vitiated the conclusions. The transplanted cells not only grew over the raw surface, but penetrated also into the granulation tissue beneath, after the manner of a beginning carcinomatous growth.

Almost more interesting and suggestive than this are the observations made by Loeb here in America on epithelial regeneration, The abstract of them by Dr. Hektoen in *Progressive Medicine* is so clear and succinct that we copy part of it verbatim: "From the margin of a tissue-defect huge epithelial protoplasmic or plasmoidal masses move in a sliding manner over the naked surface, inclosing and dissolving the crust and other obstacles. Regenerating epithelium readily removei such substances as cartilage when placed in its way. Below the protoplasmic layer, epithelial cells wander in from the margins of the defect, and often grow down into the connective tissue, apparently checking the growth of the latter. The process is closely allied to changes in carcinoma. At the same time active changes, such as mitoses, occur in the epithelial cells removed some distance from the margins of the wound. . . . Loeb believes that the wandering of the cells, as outlined, is in response to stereotropism, and forms a determining in inducing mitosis in the remaining cells."

The pregnant significance of these observations, especially the apparent action at a distance of epithelial elements in arousing epithelial cells into reproductive and germinal activity, can scarcely be overestimated. This is the essence of carcinoma,

though in healthy subjects the vital resistance may be sufficient to restrain the morbid overgrowth that would otherwise result.

According to Loeb, "if a small bit of epithelium is placed in the centre of a crust covering a defect in the skin, it begins to send out processes in all directions into the crust, the cells acting as separate organisms, independent of blood supply or nervous influence." We are evidently closely in touch in these manifestatons with the as yet inexplicable vital forces that we see at work in all their untrammeled energy and power in cancer. Further observations are needed to give the deductions from these observations practical application. They constitute, however, the most hopeful aspect of the present pathological work on cancer as far as regards the near prospect of discovering its etiology. Their value as additions to biological science—especially to that mysterious problem, the struggle for life among the various cells of the body tissues—can scarcely be overestimated.

Selections.

NUTRITIVE VALUES OF HUMAN FOOD.—It is certain that the majority of men are more concerned with the palatability of the food they eat than they are with its nutritive value. For the gourmand (happily a rarer individual than he was a century ago) the toothsomeness of his viands is the first and only consideration, and their nutritive qualities are only suggested to his mind, and then painfully, by the ultimate and unmistakable evidence of corpulence and the gout.

Probably the only people in our midst who seriously consider the question with a view of giving it practical application, are the athletes, all of whom, as a rule, know something about the relative fat and muscle producing qualities of the standard articles of diet.

Some few years ago Congress appropriated funds to enable the United States Department of Agriculture "to investigate and report upon the nutritive value of the various articles and commodities used for human food." Careful work along this line

has been carried on during the past three or four years in the New England and other Northern States, and with a view to making to making the investigation as representative as possible and securing definite information regarding the food supply and consumption of people living under different conditions, it was decided to select the University of Tennessee, at Knoxville, as a representative place for the study of food nutrition in the Southern States.

Professor Chas. E. Wait, in the University of Tennessee Record, gives a valuable paper describing the results of interesting work recently published by the Department ef Agriculture in its second bulletin on the subject. The investigations included dietary studies of students' clubs and mechanics' families in Tennessee; studies of the composition of Tennessee beef, mutton and chicken, and over a score of digestion experiments on healthy men.

The plan of the dietary studies includes the determination of the amounts and kinds of food bought and eaten during a stated period (from seven to thirty days), by a family or boarding club; the analysis of the food wasted, the record of the age, sex and occupation of the different subjects, and the number of meals eaten by each. From the data so obtained, the actual amounts of nutrients contained in the foods were calculated. From these amounts was deducted the amount of nutrients in the waste. It is interesting to note the factors assumed in calculating meals consumed in these studies. One meal of a woman or of a boy 14 to 16 years of age is equivalent to 0.8 meal of a man at moderate muscular labor. One meal of a child 6 to 9 years of age is taken as equivalent to 0.5 meal of a man, while an average child under 2 years of age eats about 0.3 as much at a meal as a man engaged in moderate muscular labor.

Three of the studies given in the report represent the food consumption of families of mechanics, who were engaged in more or less active muscular work, which was moderately severe. Five of the studies are of clubs of college students, that is, persons engaged in mental rather than in mnscular exercise. The tables show a considerable variation in the amount of protein actually consumed per man per day by the college club, ranging from 66 to 123 grammes, with an average of 92 grammes. The avail-

able energy or fuel value, however, was much more uniform, ranging from 3,450 to 3,650 calories, with an average of 3,545 calories per man per day. The daily waste of protein averaged 11 grammes, or per cent. of the amount purchased, the waste of fuel ingredients being about 7 per cent.

The proportion of protein and the fuel value in the food of the mechanics' families was slightly larger than in that of the students' club, while it was found that the protein and energy of the dietaries examined in Tennessee differed but little from those of clubs and families examined in other parts of the United States.

The experiments to determine the composition of different kinds of meat showed that Texas range beef was the leanest of those tested, with Tennessee beef next, there being but little difference between the two. Next came the beef from the Colorado ranges, followed by that raised in New England. By far the fattest beef came from the grain-producing States, Illinois and the neighboring region, this last containining 25 per cent. more fat than the Tennessee beef. The Southern and Eastern meat is superior in protein to the Western beef, but as regards the energy it is greatly inferior. Comparison of a side of Tennessee mutton with Western mutton showed again that the latter was fatter than the local meat.

Perhaps the most interesting investigation recorded in this report is the digestion experiments. The results are summarized in a table which brings out some very surprising facts. We learn, for instance, that the popular belief that a mixed diet is preferable to a diet composed of only one or two foods, is fully indorsed by this scientific investigation, as the following facts will show: The average of ten experiments with an exclusively milk diet showed 92.1 per cent. of the protein and 86.3 per cent. of the carbohydrates to be digested. Five experimeats with an exclusively bread diet, or with bread and sugar, showed 82 per cent. of the protein and 99 per cent. of the carbohydrates to be digested. On the other hand, five experiments with a diet of bread and milk showed 97.1 per cent. of the protein and 98.7 per cent. of the carbohydrates to be digested. That is to say, the protein in milk alone, or in bread alone, seems to be much less completely digested than when the two are eaten together,

It has yet to be proved that similar results would follow if other food materials were made the subject of comparison; but the general conclusion is drawn by the author of this very interesting paper that more complete digestion would occuy when the diet was nearly normal, that is to say, made up of a number of food materials.—*Scientific American.*

A COMMON CAUSE OF CRYING IN THE NEW-BORN.—On the evening of November 29, 1898, a primapara was delivered of a strong male child, which cried lustily and, after bieng bathed, fell asleep. As the mother's breasts were well developed and the child strong, instructions were given that the child be put to the breast every six hours for the first day, and that boiled water, sweetened with cane sugar, be given every two hours between the nursings.

It subsequently transpired that as the child slept soundly between the nursings, the latter part of the order was disregarded entirely or the water given but a few times. At noon on the third day word was received that the child was sick, and on arrival at the house the nurse said that it had cried almost constantly for the past eighteen hours as if suffering from colic, sleeping but little and passing no urine since the early hours of the morning.

When the child was undressed for inspection marked priapism was noticeable, and the placing of the somewhat cool hand over the region of the bladder was followed by the discharge from the penis of some four to six drachms of urine of so turbid brown a color as to attract the attention of all present. This left a yellowish brown discoloration upon the napkin, with no traces of pink. Priapism immediately ceased, and the child who had before been crying steadily fell into so sound a sleep that the subsequent examination did not awaken him. The thermometer placed in the rectum registered 102.6° (inanition temperature ?). A weak modification of milk was ordered to be given every four hours, alternating with boiled water after taking the breast. These, however, were not again given, as the child thereafter slept soundly after each nursing. The rectal temperature the following morning had fallen to 100°.

The so-called uric acid infarctions of Virchow, formed by the deposits of uric acid and urates in the straight tubules and papillæ of the kidneys in new-born infants, have been recognized for some time as a possible source of irritation, as they remain *in situ*, or are washed out by the scanty secretion of urine. Most modern text books make some mention of the subject, although it is frequently incorporated in the section dealing with the formation of calculi. Yet it is rare to find the practitioner who thinks of this cause of crying in infants, unless it be *post facto*. from the colored stains upon the diaper.

It is extremely probable that much of the supposed pain of colic in the new-born for which they have, from time immemorial, been dosed with fennel and other aromatic teas, is due to these sources of irritation in the kidneys, ureters, bladder or urethra. Boiled water, which should be given to every infant at regular intervals, for more reasons than one, pending the establishment of lactation, will dilute the urine and prevent or alleviate the discomfort. The rather unusual opportunity afforded the writer of observing matters in this case; together with the subsequent course of events, point clearly to the urine as the cause of the crying, whereas, had no such observation been made, hunger and inanition might readily have been considered a sufficient explanation of the symptoms.—*Thos. N. Southworth, M.D., in Pediatrics.*

Diet as a Cause of Suicide.—While the moralists have been discussing the question whether a man has a right to commit suicide, the scientists have been considering the question: Why do men commit suicide? Dr. Haig, who has been looking into the subject, and telling a Scotch audience his conclusions, finds the cause of suicide to be uric acid in the blood, and the reason for this is found in a bad diet, and especially meats, beer, tea and tobacco. *The Hospital* speaks as follows of Dr. Haig's reseaches:

"Dr. Haig is of opinion that suicide may be traced to error in diet, the error being the eating of meat, the drinking of beer and of tea, and the smoking of tobacco. His facts all fall comfortably into their places in support of his hypothesis. Are there

not more suicides among men than among women, and do not men consume more meat, more beer, and more tobacco than the women? Again, suicide is more common in England than in Scotland, not apparently because the Scotch are a more canny race, but because the English eat more meat and drink more beer, while the Scotch eat less meat and drink whiskey instead of beer. After maintaining that suicide was less common among the Scotch, it was hardly polite, when addressing a Scotch audience, to go on to say that suicide increased with civilization. But the fact was explained on the ground of the more injurious diet, that of civilized man being more productive of uric acid and thus of suicide, than that which prevails where civilization is less advanced. Uric acid is, in fact, at the bottom of all this, and according to Dr. Haig the incidence of suicide tallies with the daily, annual and life fluctuations of uric acid in the blood, being commonest when the uric acid is most abundant, namely, in the mornings, in spring and summer, and in childhood, and in the full prime of life.

"We have no doubt that errors of diet are responsible for much, and among other things, for a certain number of suicides; nay, we would go further and admit that unsuitable diet, derangement of the proper relation between nutrition and waste, and the consequent loading of the tissues and the blood with abnormal products of metabolism, have much to do with that ill-temper and discontent which leads men to lay their hands violently often upon their neighbors, and sometimes on themselves. All this may be taken for granted, but it is at present far from proven that the peccant material is in all cases the same, and still farther are we from being all agreed that the uric acid is the origin of the evil."—*Dietetic and Hygienic Gazette.*

PERVENTION OF CARCINOMA UTERI.—Prof. A. Duhrssen asserts that more women die of cancer of the uterus every year in Germany than lives were lost during the Franco-Prussian war, reiterating still more forcibly that women in the climacteric period are exposed to as many chances of dying from cancer of the uterus as a soldier is to be killed during active war. The same proportion exists in other countries, and the fact is well

known that it occurs principally among the well-to-do, affecting chiefly well-nourished persons in good health. Very few women who have already been under treatment, or women with cancer-phobia, die of it, as they apply early to the physician. He advocates as prophylactic measures a solemn warning to every woman to apply to her medical attendant at the slightest discharge or abnormal bleeding during the critical period, especially a discharge stained with blood. Pain is seldom experienced until the later stages. The physician should make a bimanual examination, with every assistance from mirror, curette, test excision, etc., and extirpate the uterus at evidence of a neoplasm. He even goes further and practices as a preventive measure, at the first evidences of a disharge, the removal of the entire membranous lining of the uterus, as Billroth, Thiersch and Waldeyer have established that a cancer only develops from epithlial elements, and the removal of the entire epithelial lining of the uterus will forever protect the organ against cancer. He accomplishes this with vaporization, according to Sneguireff (he has never observed any dangerous consequences), or by incision of the membraneous lining through a T-incision into the uterus, drawn out through an incision in the anterior vaginal vault. Still another security is obtained with Schroder's high amputation, which, nowadays, is without danger and still leaves a functionating uterus. As the cancer may spread and invade the surrounding tissues within a week of the first discharge noted (personal observation), and thus become inoperable, not a day should be lost in seeking a physician. He quotes Haggard in conclusion, who claims that women during the climacteric period should be under medical supervision, as a preventive measure second only in importance to vaccination and quarantines—*Deutsche Med. Woch.* January 26.

As Glorious if Less Famed.—Dr. Nicholas Senn (*Journal of the American Medical Association*, January 7th), in a response to a toast at the banquet of the Inter-State National Guard Association, after describing Æsculapius on the field of battle, said:

"Can you give me me a more striking example of genuine patriotism and heroism than the twenty-four hours' work per-

formed by our disciple of Æsculapius on the field of battle? If you cannot, I can. It is the same Æsculapian away from the bloody field in the fever camp. It requires courage to face the enemy on the field of battle. It requires courage to stand up in a rain of bullets and in an atmosphere torn asunder every few moments by shot and shell, but it requires more courage to enter the silent fever camp, with its myriad of invisible foes. The song of the bullet is sweet music compared with the silent, invisible microbes that cause yellow fever, typhoid fever, malaria, dysentery and camp diarrhœa.

"It is a privilege to die a glorious death on the battlefield; no such halo surrounds the deathbed in the fever hospital. It is here where the true, manly courage of our Æsculapian hero is put to the severest tests. Let me ask you a plain, simple question to test the correctness of the assertions I have made, a question the significance of which, I fear, is not fully understood: If left to choose for yourself, would you not be more willing to engage in a battle than to live and work in a camp filled with typhoid and yellow fever patients? It would take me or any other disciple of Æsculapius not long to decide in favor of the battlefield.—*N. Y. Med. Jour.*

Treatment of Eclampsia.—During the attack itself, administer chloroform. As soon as the attack passes off give hypodermically fifteen drops of the fluid extract of veratrum viride, and a drachm of chloral in solution by enema. Place upon the tongue two drops of croton oil diluted with a little sweet oil. Induce diaphoresis by hot packs and extra bedclothing. Inject by gravity under the breast a pint or more of decinormal salt solution, or several quarts of the solution by enema. If convulsions recur, repeat the veratrum in five-drop doses if the pulse is quick and strong. If the face is congested and the pulse full, employ venesection enough to reduce the pulse. The chloral may be repeated during the attack two or three times. Use stimulants if the pulse is weak and rapid. If the convulsions cease and the patient is in a stupor, but can be aroused enough to swallow, give dessertspoonfuls of concentrated solution of Epsom salts every fifteen or thirty minutes until free catharsis

lace. These condensed directions should be carried in ket-case of every obstetrician.—*Dr. Barton C. Hirst.*

ORDEE.—Some time ago I was called during the night to tient in the agony of chordee; the day previous he had arge doses of the bromides as a prophylactic, but seem- ney had no effect. Noting that the glans penis and the were very dry and sensitive, and seeing a jar of vaseline dresser, I thought it rational to expect to relieve him by ng the glans with it; but I was not prepared for the com- nstantaneous results, for, as soon as the glans was well l, the entire organ became flaccid and of necessity pain- This he tried again during the two succeeding nights with ults.

n after this I had another patient with gonorrhea, and ad- raseline as above used should chordee develop, which it lue course, but as quickly vanished under the soothing ce on three distinct occasions.

being able to recall having read this at any time, and g it might be of use to others, I put it before them.—*Geo. , M.D., in the New York Medical Journal.*

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ock.—In the *Med. News*, February 25, Dawbarn considers nts to be especially observed in the treatment of shock by ree use of intravenous, hot, saline infusion": 1. The f entrance, which in most cases is the median basilic vein, ally a vein in the operating wound, while, where speed factor, the rectal route is an excellent one. 2. As to ution, it should be the so called normal, really decinormal, ution, which is six parts of common table salt per thous- oiled and filtered; roughly, a heaped teaspoonful to the 3. The solution should be as hot as can be borne by d, about 120° F. 4. In the adult, the amount should be less than a liter, often two, and occasinally three, al- jecting slowly. 5. The time occupied in introducing fluid rein should never be less than ten minutes to the liter. *Am. Med. Assn.*

A MODIFICATION OF BASSINI'S OPERATION.—Dr. Carl Beck in the Section on Surgery of the New York Academy of Medicine, at the meeting of March 13th, said that the results from Bassini's operation were so good that it seemed almost presumptuous to suggest modifications, but as Bassini himself had admitted a certain percentage of failures, there must be some room still for improvement. Dr. Beck said that his own modification of the operation consisted in making an incision on the outer border of the rectus muscle, exposing its lower third and the shelving portion of Poupart's ligament. After the aponeurosis had been divided and dissected backward, an oblique incision was made across one-third of the width of the rectus muscle, and the fibres were pulled downward so that there would be no tension when they were approximated. In this way a muscular flap was formed, upon which the cord could rest. The divided aponeurosis was then approximated above the cord. One theoretical objection to this procedure might be the gap between the muscles, yet it amounted to but little in practice. In smaller hernias the cutting off of the sac might be rendered unnecessary. The case was presented as an experiment; the future must determine its true value. Last year he had done a Bassini operation on this same patient, and the hernia had recurred.—*Med. Record.*

A CONVENIENT WAY TO GIVE A VAGINAL DOUCHE.—Dr. V. R. Pennock (*Colorado Medical Journal*, February) says that in ordering a vaginal douche it is very easy for us to inform our patient that she should use two or more gallons of a certain solution, instruct her as to the kind of nozzle to use, the height of the reservoir, and to lie always upon her back. This last direction she is very apt not to follow, unless taught a method more convenient than using old rags to collect the return flow.

He has used the following method for a few years, and finds it convenient for douches, even after curetting at the patient's house:

An ordinary straight-backed chair is tipped forward with its top over the middle of a washtub. The chair in this position is covered with pillows and the patient places herself upon it, with feet on the edge of the tub and hips over its middle, supported

e back of the chair. There is no soiling of garments or ben- and the apparatus can be found in every home.

LCOHOL A SPECIFIC ANTIDOTE FOR CARBOLIC ACID.— ps (N. Y. Medical Journal) declared that in the New York Graduate Hospital, alcohol has come to be recognized as a fic against carbolic acid poison. He refers to the use of m-sulphate solution by Wise, as effecting a soothing result al carbolic acid erosion, but declares that it will not prevent listering of deep escharotic effects as alcohol will. Powell ong used the latter in his clinic in ways that show its mar- e power. He will have a nurse pour pure carbolic acid is hands in the presence of his class and in a few moments hem into a basin of alcohol from which he removes them ut a trace of escharotic action. At the Polyclinic abscess- es are washed out with pure carbolic acid and a few mo- later with pure alcohol. In empyema, after making a opening in the chest-wall, the cavity is washed out with a r cent. solution of carbolic acid followed by pure alcohol, here is never any untoward effect. Instead, the cavity of leura is left aseptic. The writer says that from personal rations and demonstrations in the use of pure carbolic acid red by the use of alcohol, he can state positively that alcohol absolutely safe and sure specific against the escharotic of pure carbolic acid.—*Merck's Archives.*

OKERS' TEETH.—The *Ohio Dental Journal* for January, g the *Weekly Dentist*, says that it has been found that the of smokers are less liable to decay than those of non-smok- It has also been found by scientific research that *Leptothrix* ie and the other germs found in the mouth are rendered ous by tobacco smoke, and it is an established fact that it ntirely destroys or retards the development of the bacillus lera, of anthrax, and of pneumonia.

INFARCTIONS OF URIC ACID are frequent in new-born infants, and those of a hemorrhagic and pigmentous nature are not uncommon, and calcareous deposits are at least of occasional occurrence in the kidneys of the newly-born. Gravel and stone are also frequent in infancy. All these foreign masses lead to disintegration of the endothelia, to hemorrhage, and to inflammation. Moreover, the rapid destruction of the red blood-cells in the normal new-born, and the transformation of hematin into hematoidin, which is identical with bilirubin and biliverdin, lead to obstructions and thromboses. It is a large supply of water that should be given to every newly-born infant as a matter of course, while the milk supply is absent or scanty, that will prevent many of the dangerous ailments of the first weeks of life.—*Jacobi, Phildelphia Medical Journal.*

VARICOCELE AND SEXUAL POWER.—In the *Clinical Journal* (February 15) Williams discusses the influence of varicocele on sexual power. His experience is that after an excision of varicose veins patients have been more virile and enabled to fulfill their marital duties in a manner that was formerly impossible. In the case of a large varicocele with sexual disability, in which palliative means had failed to relieve other than the symptoms of weight and pain, he operated in the hope that excision might, while curing the former, also benefit the generative state as he had noticed in other instances. The result was that the patient was sexually rehabilitated. His preference is for the operation known as "Bennett's modification," which he describes in detail in the paper.—*Jour. of Am. Med. Assn.*

DON'T JUMP TO CONCLUSIONS.—The *Revue medicale* for February 15th tells the following story: At the hospital: Clinical professor (to patient): What is your occupation? Patient (with bronchial catarrh): A musician, sir. Professor (to the students): Here, gentlemen, I have an opportunity of clinically demonstrating to you a fact to which I have frequently referred in the lecture rooms—namely, that fatigue and the respiratory efforts called for by the act of blowing on wind instruments are a fre-

:ause of the affection from which this man is suffering. patient:) On what instrument do you play? Patient; ; drum, sir.

'ODERMIC INJECTIONS OF SALINE SOLUTION IN ECLAMP- 'oucet and Vinay (*Sem. Med.*, June 1,1898) report the ıg case: A woman in the sixth month of pregnancy was d with eclampsia, and her general condition was exceed- ɜrious, with complete coma, suppression of urine, high ıture, etc. Abortion was induced, the child being dead ɔorn; 5¼ pints of normal saline solution were then in- ıypodermically. Recovery was rapid and complete.— *Medical Journal.*

:HYLENE BLUE IN ACUTE ARTICULAR RHEUMATISM.— e asserts that methylene blue is more rapid and effective ı articular rheumatism than sodium salicylate, especially rrheal rheumatism.—*Bull. de l'Acad. de Med.*, Jan. 31.

ILE MIKE—Feyther, phot is an octogenarian?
UBBERTY—An octogenarian, me b'y, is a mon that has es on aich fut.—*Harper's Bazar,*

OID.—Dr. John V. Shoemaker, Professor of Dermatolo- ıe Medico-Chirurgical College of Philadelphia, declares ee principles—compression, incision and electrolysis—are t promising at our command for the treatment of keloid. ay be used separately or in alternation.—*Ex.*

ɔERS & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and f cures effected at the clinics at the Universities of Bonn and ld. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., 'ex., and New York, sole agents.

Editorial.

TWENTY-FOURTH ANNUAL COMMENCEMENT OF THE MEDICAL AND DENTAL DEPARTMENTS OF THE UNIVERSITY OF TENNESSEE.

Notwithstanding a continuous and steady downpour of rain for the day and night preceding, which gave way to a fitful flurry of snow, and as the shades of evening came down "a nipping and eager air" was coming direct from the northwest corner of the old peach orchard, the usual packed audience of the culture and elite of Tennessee's capital city was on hand in the capacious Vendome Theatre to greet the faculty and graduating classes of the Medical and Dental Departments of the State University on the evening of March 28. The short, crisp, but eloquent addresses, interspersed with musical selections by the Vendome orchestra, afforded an evening's entertainment of more than passing merit.

The stage, tastefully set and prettily decorated with American Beauties and other hothouse offerings, was occupied by the President of the University, Dr. Charles W. Dabney; Rev. Ira P. Landrith, the faculty, and the valedictorians of the two departments. Professor W. D. Haggard, M.D., President of the Faculty, acted as master of ceremonies, and gracefully and fittingly introduced the various orators of the occasion.

The programme was opened with an appropriate prayer by Dr. Ira Landrith. The first speaker of the evening was Dr. G. T. Drennan of Tennessee, valedictorian of the Medical Department.

Dr. Drennan followed the usual lines and delivered quite an able and appropriate address. He spoke in the highest terms of the faculty and his fellow-students, and paid a high compliment to the citizens of Nashville for their uniform kindness and courtesy extended to the students. His delivery was deliberate but not tedious, and with full, mellow voice, accompanied by tasteful gestures, his eloquence and ease gave ample evidence of the excellent selection that had been made from what has been recognised as one of the best graduating classes sent out from this institution.

He was followed by Dr. F. A. Blanchard of Louisiana, valedictorian of the Dental Department. Dr. Blanchard began his address with a description of the wonderful advance made in the past few years in a material way. These advances, he thought, caused some difficulties and discontent to those who were compelled to struggle for a plain living while indulging in high thinking. Men were prone to forget that there were

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[illegible] of the world as in
[illegible] a mechanical way.
[illegible] especially in the
[illegible] that in their work,
[illegible] success.
[illegible] Ward, who delivered the
[illegible] said, had reached the
[illegible] existence. For many years it
[illegible] superstition. It was a profes-
[illegible] great patience, but it had its

[illegible] encouragement and advice to the
[illegible] than his calling. He should
[illegible] greatests interests. In pol-
[illegible] front. He should not be con-
[illegible] to occupy that place in the
[illegible] education fitted him.
[illegible] the charge to the dental gradu-
[illegible] the class the fact of the importance
[illegible] which is caused to devolve upon them.
[illegible] you must justify your position as
[illegible] classes. Have the highest regard
[illegible]
[illegible] and practice of dentistry he thought
[illegible] of any other specialty in medi-
[illegible] to the work that had been done. He
[illegible] the civic duties that every man owed to
[illegible] take as prominent a part as possi-
[illegible] political movements about them, to be
[illegible]
[illegible] Ph.D., LL.D., in his usual happy and
[illegible] confer the degrees. In his prefatory
[illegible] character the present classes had won
[illegible] He asked the young gentlemen
[illegible] were entering on the threshold of their pro-
[illegible] although as many of them being Southern
[illegible] to labor hard for the means necessary
[illegible] education, and would be justly entitled to a
[illegible] was necessary to pay the minister of the
[illegible] remuneration for his services. Not
[illegible] ambition was praiseworthy, and the rich
[illegible] were well worthy of attainment. Nor for pleas-
[illegible] suffering, pain and distress, pre-
[illegible] of death, could be ranked among the
[illegible] for gain, honor or pleasure, but for
[illegible] their fellowmen, their country and God.

Duty should be their watchword, and they should never forget their duties as citizens of the grandest government in the world, whose three great ideas were free government—not based upon individual suffrage, but public opinion—free religion and free education. He cited the three great epochs of this country—the Revolution, the late civil war, and the recent Spanish-American war—all educational events in the enlightenment of the world, and the last having left a heritage, whether we are expansionists or not, of educating, civilizing and Christianizing ten millions of people.

Professor J. P. Gray, M.D., D.D.S., Dean of the Dental Department, then called out the names of the following gentlemen, who, on approaching the rostrum, received at the hands of Dr. Dabney their parchment title-deed to the degree of Doctor of Dental Surgery:

Wayland H. Bailey, Tenn.
Robert M. Black, Miss.
F. A. Blanchard, La.
Marion A. Bryant, Tenn.
W. M. Chambliss, Miss.
Herbert R. Clark, Tenn.
Douglass B. Dawson, Tenn.
James W. Dennis, Ark.
C. B. Fowlkes, Tenn.
A. W. Gould, Tenn.
E. P. Gould, Tenn.
O. L. Gould, Tenn.
Edward R. Hart, Mo.
Alex. H. Jackman, Ky.
W. A. James, Miss.
Flem A. Johnston, Ala.
S. R. Jones, Tenn.
Wm. C. King, Tenn.
Ernest A. Long, Ark.
J. H. McLean, N.C.
Edgar W. Moose, N. C.
R. A. Nicholson, Miss.
John C. Parr, Tenn.
J. A. Pelky, Mass.
J. B. Risenhoover, Ky.
J. A. Rule, Mich.
Baxter C. Scott, Miss.
J. S. Ward, M.D., Tenn.
C. Lin White, Va.

Professor Paul F. Eve, M.D., Dean of the Medical Department, then announced the following names of the medical graduates, who came forward and in like manner received the diplomas granting them the degree of Doctor of Medicine:

Rolf. P. Wilson, Tenn.
J. Ned Buchanan, Tenn.
Sam'l R. Fields, Tenn.
George High Ross, N. C.
J. Ellet Conyers, Ky.
Thos. A. Lawery, Tenn.
Ethan A. Sherrill, Texas.
Tilman Ramsey, Ky.
Jas. G. Robertson, Tenn.
W. S. Casey, Mo.
Jas. W. Etheridge, Tenn.
Wm. F. Bittr, Ky.
Geo. F. Drennan, Tenn.
C. F. Crowder, Tenn.
A. L. Blair, Ky,
B. F. Greene, Miss.
Chas. R. Graham, Miss,
J. W. S Emerson, Ky.
Leo D. Freeman, Ky.
S. C. Frost, Tenn.
J. T. Moore, Tenn.
J. W. Tillson, Miss.
Hayden A. West, N. J.
C. A. Atkins, Tenn.
Power Gribble, Tenn.
Jno. W. Good, Ga.
Albert G. Pettey, Miss.
Jno. L. Powell, Tenn.

J. Knox Freeman, Tenn.	T. M. McDuffie, Tenn.
Jno. M. Drake, Tenn.	Joe G. Gray, Tenn.
J. P. Draft, S. C.	S. E. Harmon, S. C.
Frank B. DeWitt, Ky.	Vernon Hutton, Tenn.
L. L. Dismukes, Ala.	J. H. Hastie, Ala.
Jno. L. Allen, Tenn.	S. F. Hinson, Tenn.
O. L. Shelton, Ky.	W. L. Isley, N. C.
Chas. C. Leech, S. C.	Wm. R. Johnson, Tenn.
H. T. Cuming, Miss.	J. Paul Manboules, La.
Chas. E. O'Brien, Ky.	J. E. W. Price, Tenn.
Alex. S. McCrary, Ga.	Clinton H. Morgan, Tenn.
Wm. McC. Morgan, Texas.	Bruce A. McCubbins, S. C.
Jas. H. Taylor, Tenn.	A. M. Gamble, Tenn.
C. W. Gaskill, Tenn.	B. W. Sutton, Tenn.

Professor W. D. Haggard, Jr., M.D., then delivered the prizes to the honor men of the two departments. His brief but pointed and appropriate remarks were well received, and were justly regarded as the gem of the evening's entertainment. The following were the fortunate and successful contestants:

Paul F. Eve Faculty Medal, First Honor, to Tilman Bunnell, Ky. This carries with it the interneship to the City Hospital for the coming year.

Faculty Second Honor, J. W. Good, Ga. This carries with it the interneship to the Davidson County Asylum for the coming year.

Faculty Third Honor, J. H. Hastie, Ala.

Special Medal, Surgical Laboratory, J. G. Gray, Tenn.

Special Medal, Gynecology, E. A. Sherrill, Texas.

PRIZES.

The prizes in the Dental Department were thus awarded:

Alex. H. Jackman, First Faculty Honor—Gold Medal.

Herbert R. Clark, Second Faculty Honor—Gold Medal.

Wm. C. King, Third Faculty Honor—Gold Medal.

J. A. Petky, Gold Medal awarded by Professor F. R. Sombsky, D. D. S., for Proficiency in Prosthetic Dentistry.

The benediction by Dr. Leadrich closed the exercises, and the large and well pleased audience, the happy graduates, the faculty and friends, after good-byes and parting congratulations, slowly dispersed.

The next regular course of instruction will begin Monday, October 2, 1899.

Reports of Commencement Exercises of Medical Department, University of Nashville, and Medical Department of Vanderbilt University will appear in our May issue. They reached us too late for this number.

THE STATE MEDICAL SOCIETY—SIXTY-SIXTH ANNUAL SESSION.

The annual meeting of the Medical Society of the State of Tennessee will be held in this city, April 11, 12, 13 next. From the preliminary program, published herewith, it will be seen that a magnificent array of interesting papers have been promised. The meetings in Nashville every alternate year always bring out a goodly pilgrimage of her loyal sons. In the early history of the Society, in the '30s, some of the members rode horseback from across the mountains in East Tennessee; now reduced rates are offered on every railroad in the State.

The meeting will be of more than ordinary interest. Already nearly a score of new members have sent in their applications. The profession throughout the State are awakening to the necessity of a regularly organized and united profession. The value of such a brotherhood is unbounded. Let the clans gather!

The Tulane Hotel will be the headquarters and place for exhibits. Dr. G. C. Savage is the Chairman of the Committee of Arrangements, which gives the most pleasing assurance of a royal welcome and princely entertainment. The meetings will be held in the Music Hall, 139 North Spruce street, the Capitol now being occupied by the Legislature. This hall is central, commodious, of easy access, convenient to the hotels, and in every way well suited to the purposes of the meeting. Every regular physician in the State will be cordially welcomed; so not only come yourself, but bring your friends, your wife and your daughters with you.

A rate of one and one-third fare is assured on all railroads in the State. Certificates should be obtained by members at starting point, which, on being signed by the Secretary, will entitle the bearer to return ticket at one-third rate. Members of the medical professson are cordially invited to attend. Titles of papers, corrections, or applications for membership, should be sent to W. D. Haggard, Jr., Secretary, Nashville, Tenn.

The papers promised already are as follows:

Subcutaneous Rupture of Large Arteries from Contused Wounds—Dr. J. A. Crook, Jackson.

Immunity and Susceptibility—Dr. I. A. McSwain, Paris.

Abscess of the Liver, with Report of Cases—Dr. M. Goltman, Memphis.

The Hippocratic Oath—Dr. A. M. Trawick, Nashville.

Tubal Pregnancy, with Report of Cases—Dr. J. M. Black, Knoxville.

The Treatment of Acute Pelvic Inflammation in Women—Dr. H. R. Coston, Fayetteville.

The Non-Operative Treatment of Appendicitis—Dr. E. L. Gleaves, Cottontown.

The Fever in the Mountains of Upper East Tennessee—Dr. H. P, Chance, Tazewell.

The Abuse of Quinine in Malaria Hematuria—Dr. J. F. Griffin, Tiptonville.

Vesical Calculus in Women—Dr. T. J. Harper, Trenton.

Typhoid Fever and its Treatment—Dr. G. C. Morris, Savannah.

Chorea, with Report of Case Complicated with Pregnancy—Dr. T. W. Gallion, Dandridge.

The Treatment of the Effects of La Grippe on the Prostate and Bladder of Old Men—Dr. A. B. Hansard, Twinville.

Melancholia—Dr. B. W. Stone, Nashville.

Diphtheria; with Report of Cases Treated with Antitoxin—Dr. Jere L. Crook, Jackson.

The Duration of Gestation—Dr. S. S. Crockett, Nashville.

The Physiologic and Therapeutic Effect of Static Electricity—Dr. G. P. Edwards, Nashville.

Some Interesting Cases in Rectal Surgery—Dr. A. B. Cooke, Nashville.

Four Cases in Abdominal Surgery, with Results to Date—Dr. T. J. Crofford, Memphis.

The Medulla as a Speech Center—Dr. W. Fl Rochelle, Jackson.

Puerperal Septicæmia—Dr. J. H. Preston, Humboldt.

The Treatment of Pneumonia—Dr. R. J. McFall, Cumberland City.

The Treatment of Rheumatism—Dr. C. W. Fleenor, Holston Valley.

Chronic Gastritis—Dr. W. C. Bilbro, Murfreesboro.

The Cause, the Nature, and the Treatment of Laryngitis in Singers—Dr. Richmond McKinney, Memphis.

Report of an Interesting Case of Eye Disease—Dr. J. L. Minor-Memphis.

Abdominal Pregnancy, with a Report of a Case—Dr. S. B. Fowler, Gainesboro.

Reports of Cases of Hemorrhoids Operated on—Dr. Jno. L. Jelks, Memphis.

Sudden Deafness with Aphasia of Eight Months' Duration—Dr. J. T. Herron, Jackson.

Typhoid Fever—Dr. J. R. Puryear, Weir.

The Treatment of Urethral Stricture—Dr. W. F. Glenn, Nashville.

The Motor and Sensory Areas of the Brain and Spinal Cord, and their Physiological Functions—Dr. D. R. Neil, Nashville.

Report of Cases of Appendicitis with Hematoma of the Ovary; and Supra-Pubic Lithotomy in a Child—Dr. William D. Sumpter, Nashville.

Report of Unique Case of Gunshot Wound of the Abdomen—Dr. R. E. Fort, Nashville.

The Presidential Address—Dr. T. H. Marable, Clarksville.

"THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION."—At a meeting of the Board of Trustees of the American Medical Association, held in Chicago, February 17th, Dr. George H. Simmons, of Lincoln Nebraska, was elected editor of the *Journal*, to fill the vacancy caused by the death of Dr. John B. Hamilton at Christmas.

DON'T IT MAKE YOUR MOUTH WATER?—YUM, YUM!

"I, in these flowery meads would be—
These crystal streams should solace me,
To whose harmonious bubbling noise
I with my angle would rejoice."—*Izaak Walton.*

"Had the occasional warm and sunny days, the few buds beginning to put forth, reminded you that April, the mild month of spring, was almost here? Are you reading advertisements of spring medicines, or are you one of the lovers of nature, dreaming of some crystal stream with grassy banks just beginning to be sprinkled with buttercups, the music of the stream, and birds mingling with the singing of the reel, the reflecting silver sides, and the flouty, lusty trout? Have visions such as these filled your mind? Are you one of the followers of Izaak Walton, looking forward to this season of the year as one of the pleasures?"

Such is the preface to a circular letter just received from The Gray & Dudley Hardware Co., of this city, which also contained samples of their Tennessee Bass Hook, a "thing of beauty and a joy forever," and their Tennessee Bass Line, "a perfection of the braider's art in silk."

Ah! just think of it, as the bright spring days come and go. The moon is on the wane and the "sign" is below the belly, and you find yourself on the bar side of one of our rippling crystal streams, and as the sun in his majesty and glory is beginning to gild the treetops and hillsides, the down of the cottonwood is filling the air, the dogwood blossoms look like patches of snow on hill and in hollow, the bluebirds and robins are chirping, the sombre-hued crow looks warily from the distant treetop as the farmer turns his mellow furrow, and you have cast, with supple wrist and hand that has not lost its boyhood's cunning, your wriggling "steelback" full thirty yards away to a deep and eddying pool near the farther bank, and patiently await developments. With hazy and misty or more vivid recollections of a delicate operation, a critical case of the recent past, or possibly wondering how Banker B.'s gout is, or old Mrs. M.'s rheumatism, or how much shortening there will be in that last fractured femur, the stillness of the gently-flowing stream and the tide of your meditations are broken at last—not by the wrangling discord of the merciless telephone, or the more sonorous sound of "Hello, Doc!" if you are a rural confrere—Ah, no! it is something more entrancing far than even a maiden's melodious voice—the jingle of gold or silver—more thrilling than the picket shot of a generation ago—it is the click, click, click of your Meek or Milam. You wonder how so small a sound can make so loud a noise. A few more clicks and then a stop, and now a short whirr, and all is silent but your tumultuous heart-beats. You wait. The seconds seems hours—the silence is almost painful in its intensity. Has he left your minnow as tasteless and insipid, or has he become alarmed at the danger lurking therein? Waiting, waiting, you are almost tempted to feel of him, and are about to grasp the delicately-poised crank of your reel when the silken cord begins to jiggle, jiggle; his touch is so light that it does not

turb the watch-like bearings of the cogs, when at last, *Whirr—s!* and ay he goes with a leonine rush that tightens to the utmost every fibre your body, even those most delicate of heart and brain, and your grey ls almost crystallize with excitement and anxiety.

At length the decisive moment has come; you decide that he has ached your minnow, and with promptness your thumb firmly compresse barrel of the reel, and you feel an electric shock—a tug, and as the e tightens your rod bends, you recognize that there is a "mossback" in r at the other end of your line. Jug-jug-jug, goes the line, and bend nd-bend, the pole; then with a steady swish of the line, as with its ten fibres tautened to their utmost tensile strength, your enemy makes the bank below you, on which you stand. Cautiously, step by step, walk out into the stream, until its rippling waves come well up on ir rubber boots, as he endeavors to get round the corner of the bank wn there. He cannot stand the pressure, and with a sudden turn he eses to the farther side with the speed and rush of a high-power locotive on a down grade making up lost time, he essays to pass up-stream. n let him go to what you think is the limit—he stops—the line stretches nd as you throw the tip of your rod down and backward, like a flash of ht he springs three feet or more into the early sunlit air, the drops of pid water falling from his glittering scales, rivaling them in their sil- brilliancy, as he drops back with a splash for another rush. Now e, now there, up and down, across and back—his rushes becoming rter and less violent as he feels the continuous strain, beginning with barbed steel and terminating in his quivering flesh. Steadily you turn crank of your reel, and the forty or more yards that initiated the strug- have become reduced one-half, and as you feel that you have him al- st under control, with one last heroic effort he again essays a still more lent rush, so grand in its proportions that with anxiety and admiration nbined you are forced to yield a few yards of line, the tension being so at that it seems that its silken fibres must part, or the well-tried joints your flexible rod must break; but at last he yields, the fight is rapidly wing to a close, shorter and shorter is the braided length of well-tried between you, until with a firm and steady pull as you move backward p by step, slowly but steadily, you gently draw him out on the shelving nk of clean and polished gravel.

Ye gods! what a moment, as you stand almost breathless over him, oying the beautiful picture of the rich, dark, emerald green of his back trasting with the silvery sheen of his under surface, the brilliant gleam his regal eye, his wide and capacious mouth into which you could nst your two fists, the rich red of his gills as he gasps, powerless and ionless, excelling in their carmine coloring the ruby redness of your etheart's lips when she yielded her first kiss. Yes, you feel that you a conqueror, and as his majesty brings down the indicator to 5¾ nds, you would not exchange the plenitude of joy included in those ting but lengthy thirty minutes for the "wealth of Ind," or "a cycle of hay."

"Hallo, Doug.! Has Dunc. got that flask?"

SANMETTTO IN PROSTATITIS, URETHRITIS, DYSURIA AND ENURESIS. —I have used large quantities of Sanmetto during the last six or seven years, and it is very difficult for me to find words to express my enthusiasm over its action in genito-urinary diseases generally. In urethritis, prostatitis and enuresis it has never failed me. One case I especially call to mind, an old gentleman, aged 80, who had for twenty years been troubled with incontinence of urine, and slept with a tin can at night and carried a sponge by day to absorb the constantly flowing urine. He had tried physicians all over without relief. I put him on Sanmetto ʒi four times daily, and within six weeks he was perfectly cured and remained so till his death, nearly six years afterward. I never find a case of dysuria, in either male or female, that Sanmetto fails to relieve. I look upon it as the mainstay in my genito-urinary practice.—*R. R. Hopkins, M.D., Richmond, Ind.*

HAYDEN'S VIBURNUM COMPOUND.—The most successful remedy for all spasmodic complaints known to the medical profession, being free from all narcotics, poisons, coal-tar derivatives, or any other objectionable drug.

"H. V. C." may be administered to a child without danger or special caution. It is agreeable, prompt and reliable in its action, and not surpassed or equaled in the disorders for which it is recommended. Indicated in all cases of internal pain of the stomach or bowels.

"H. V. C." does not weaken the heart's action, as too many sedatives do. Its properties are tonic, antispasdomic, and nervine. It has been employed for the last thirty-two years by medical men, and has demonstrated its great value.

In female disorders it has proved to be the *sine qua non.*

It is employed in all of the large hospitals and remedial institutions in the United States; a remedy which receives universal commendation wherever known.

In writing your prescriptions please be particular and specify Hayden's Viburnum Compound, and accept no other.

ONE OF THE OLDEST ANTISEPTICS, BUT ONE OF THE BEST.—There are thousands of physicians, yes, tens of thousands, we doubt not, who can say with "Doctor," in "An Interview," "Why, I absolutely depend upon Listerine in most of my throat work, and find it of inestimable value in my typhoid cases (as many a poor soldier boy can testify), and there are a number of purposes I put it to in the sick room, where nothing can take its place, notably as a douche, mouth wash, and in sponging my fever patients. Furthermore, I always deem it my duty to see that my patients get exactly what I order for them, therefore I always order an original package, thus avoiding all substitutes. That is just where my views upon

sional attitude and sound business policy consolidate into one joint for the patient's benefit, and, incidentally, my own.
ike every other good thing, Listerine has been counterfeited, as a physician has found to his regret, none of the "just as good and er" preparations approaching it for trustworthy antiseptic service.
s. *Medical Journal.*

MERICAN MEDICAL ASSOCIATION.—The American Medical Associa- old its next annual meeting in Columbus, Ohio, June 6, 7, 8, and 9, As customary in connection with these meetings, there will be an t. For this purpose a special building 190 feet long by 44 feet wide erected adjacent to the State House. It will be well lighted and ated, and will be supplied with electric current. The rotunda of ate House will be used for registration, for a postoffice, and for en- g railroad certificates. A wide hallway leads directly from the ro- into the exhibition hall. The Section meeting-places are all lo- on the square surrounding the State House. No pains will be to make the exhibition hall suit the convenience of those who oc- t. It is the determination of the profession of Ohio to make this g surpass all previous meetings of the Association, and all indica- oint to a very large attendance. The exhibitors will thus come in with a large number of physicians who are not delegates or per- t members of the Association, but who will embrace this opportun- visiting the Association and making observations of the various f goods represented in the exhibit. N. R. COLEMAN,
Chairman Sub-Com. on Exhibits. 264 E. Town St., Columbus, Ohio

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CREDIT!—The very excellent paper of our gifted and talented townsman, Dr. W. D. Haggard, Jr., on Abortion—Accidental, Es- , Criminal, read before the Nashville Academy of Medicine, Aug. , and published in full in this journal for September last, we find nced in *The Indian Medical Record*, published at Calcutta, Feby. 1, its first original article. Our distant contemporary of the far East tedly readily recognizes a good thing, but possibly thought that the listic courtesy of acknowledging the existence of our modest bant- unnecessary. However, we desire to say that the eye (i) of THE TIONER will be found in *everything* pertaining to medicine through- world.

NEW URINARY DISINFECTANT.—The drug discussed by the author n as hexamethylentetramin, prepared by union of ammonia and lehyd in solution. On account of the various ways in which this ce alters urine, it has been named arotropin.

From a study of its action in several cases the following conclusions are presented:

1. Urotropin produces no untoward symptoms when administered in amounts of thirty grains per diem.

2. It renders an alkaline urine acid no matter what the cause may be.

3. It inhibits the development of the micro-organisms of ammoniacal cystitis, and in this way clears up cloudy urine.

4. It is indicated as a preparatory disinfectant in operations upon the urinary tract. in pyelitis, cystitis, and other inflammations of the urinary tract irrespective of their cause; in phosphaturia, and in other conditions tending to formation of urinary calculi.—*R. W. Wilcox, M.D., in N. Y. Medical News.*

Vin Mariani in Exhaustion.—We have had occasion in numerous instances to administer "Vin Mariani" to business and professional men who complained of being gradually run down. The work of the office, the cares and worry entailed by business, and the physical flaccidity brought on by overwork, all seemed to give way completely in a marvelously short space of time, despite the fact that the subjects continued uninterruptedly at their usual occupations. The notable fact to be observed is that in each instance the effect was permanent. But it must not be forgotten that, in order to make this result a lasting one, it is necessary to keep the patient upon a prolonged course in the use of "Vin Mariani." There is no doubt whatever that this preparation has proven itself a boon to mankind.—*St. Louis Medical and Surgical Journal,* March, 1899.

Insomnia.—In a short article in *The Journal of Medicine and Science,* Dr. I. J. Higgins of New York speaks very highly of Kryofine. In several cases in our own hands lately it has given most admirable results; in one notably, an old lady over 80, it proved most satisfactory. Drs. J. Rudish, A. Meyer and A. G. Gerster, also of New York, all allude to it as a drug of marked value as an algesic and hypnotic, which, although being powerful, is perfectly safe, even for children.

The Annual Meeting of the Western Ophthalmologic and Oto-Laryngolic Association was held in New Orleans, February 10 and 11. Owing to the unavoidable absence of the President, Dr. J. Elliott Colburn of Chicago, the First Vice-President, Dr. W. Scheppegrell of New Orleans, presided. Two joint sessions and three sessions of the Ophthalmologic and Oto-Laryngologic sections respectively were held, and many important papers read and discussed.

The following officers were elected for the ensuing year: Dr. W.

agrell of New Orleans, President; Dr. M. A. Goldstein of First Vice-President; Dr. H. V. Wardemann of Milwaukee, S ce-President; Dr. E. C. Elliott of Memphis, Tenn., Third Vi nt; Dr. F. C. Ewing of St. Louis, Secretary; Dr. W. Dayton , Neb., Treasurer.

Louis was selected for the next annual meeting.

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e Upper Cumberland Medical Society meets at Gainesbor sday and Wednesday in May, 1899. The following are the o sted at the last meeting: A. H. King, M.D., Chester Mona President; S. B. Fowler, M.D., Gainesboro, Tenn., First Vic nt; G. W. Herod, M.D., Pleasant Shade, Tenn., Second Vic st; M. B. Capps, M.D., Livingston, Tenn., Third Vice-Presides Farmer, M.D., Jared, Putnam County, Tenn., Secretary; E. I M.D., Chestnut Mound, Tenn., Treasurer.

PRECIPATED SULPHUR IN DIPHTHERIA.—J. A. Forsland has described (*Eira*, vol. xxii, 1898, No. 8) a method of treating diphtheria that he has employed for twenty years with marked success. The diphtherial exudate is to be thoroughly coated by insufflation with precipitated sulphur three times a day, some indifferent gargle, preferably sodium biborate 1:20, being used in conjunction. Under this treatment he states that his mortality has dropped to 5 per cent., and among his cases many severe ones were treated. The applications diminish the pain, are entirely harmless, easy to carry out, and inexpensive.—*Medical Record.*

IODIA.—Case 1. M. S., 52 years of age, male, was some years afflicted with an obstinate form of erythema, probably of specific origin, which heretofore had resisted the usual constitutional and local treatments. The itching of the eruption was intolerable, the anemia very pronounced—the whole constitution run down. Six weeks' medication with Iodia, supplemented by extract of malt and cod liver oil, brought the case under control. I attribute the good effect of Iodia in this, as in other cases, not so much to its mineral ingredients (potass. iodide and ferri phosphate) as to th eir combination with the fresh principles of vegetable alteratives. I for my part, believe that only the extracts of the green or fresh plants are reliable for therapeutic effects, the common fluid extracts of the dried plants having proven mostly inert in my hands.

Case 2. R. W., æt. 38, female, presented glandular enlargements complicated with functional disorders (dysmenorrhea). The persistent administration of Iodia brought marked improvement, and patient is on a fair way to recovery.

Case 3. J. P., male, æt. 60, blood poisoning with chemicals used for dyeing, manifesting itself in a rupia-like eruption and general malaise. Iodia promptly eliminated the morbid matter.—*A. Ziegler, M.D., Allegheny, Pa.*

THE TREATMENT OF KELOID is not, I am sorry to say, of much promise. One might think that such a tumor as we have in this woman, for instance, was a fit subject for the surgeon's knife. The operation in itself seldom presents any great difficulty, but it is one which leads the experienced surgeon to ask himself; *cui bono?* For the growth, almost without exception, recurs sooner or later, and often very rapidly, inasmuch as I have seen recurrence when the cicatrices of the operation had scarcely healed. Moreover, the new growth generally increases at a swifter rate than the original tumor. For these reasons I discourage operative interference, at least in the way of excision. Internal medication is not likely to do any good. Arsenic, ammonium chloride, potassium iodide, and cod liver oil have sometimes been given perseveringly for long periods with the idea of causing retrogression, but the results hardly offer any encouragement for the practice. In such a case as this I should be disposed to

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[illegible]

[illegible] in the streets [illegible] of Chicago have done [illegible] the earliest [illegible] have equipped their cable [illegible] fenders, in accordance with an ordinance. In [illegible] only three persons were killed on the street railways [illegible] the same period of 1896 there were eight victims [illegible] half of last year was nine deaths per month. Al[illegible] not as yet fulfilled the requirements of the ordina[illegible] that the number of fatal accidents will be even [illegible] is provided with a fender.

[illegible] statement from so reliable an authority as [illegible] of March 25 is well worthy the attention of the auth[illegible] ying the advantages of rapid transit through their [illegible] cities in Nashville make it especially pertinent [illegible] all here enjoy the advantages, yet others have right [illegible] overlooked.

MEDICAL ASSOCIATION OF GEORGIA.—The semi-cen[illegible] this association will be held at Macon on April [illegible] ll be read by invitation by Dr. N. Senn of Chicag[illegible] gery;" H. A. Hare of Philadelphia on "Typhoid [illegible] lce of Philadelphia on "Appendicitis" The pro[illegible] g list of attractive titles of papers promised by me[illegible] nd there will also be a symposium on "Ether An[illegible] he memory of Dr. Crawford W. Long, one of the em[illegible] ety and for whom is claimed the honor of the dis[illegible] ther anesthesia in surgery.

Reviews and Book Notices.

TWENTIETH CENTURY PRACTICE. An International Encyclopædia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In Twenty Volumes. Volume XVII. "Infectious Diseases and Malignant Neoplasms." New York: WM. WOOD & Co., 1898.

A note from the publisher gives the information that "owing to unforeseen difficulties in the preparation of Vol. XVI, it has been found necessary to issue Vol. XVII out of its regular order"; yet the subscribers need have no uneasiness on that score, for the preceding volume will make its appearance with all the certainty that has marked its predecessors. It is remarkable with what regularity the first fifteen volumes have made their appearance, and is commendable in even so complete a publishing establishment as the one which undertook this great work. Vol. XVII brings us to the conclusion of the infectious diseases, and also begins the consideration of malignant new growths; the preceding volume being filled with those infectious diseases not included in its predecessors and the volume not received. The subject of Diphtheria is here considered by Wm. Hallock Park, M.D., and A. Jacobi, M.D., of New York, the first devoting forty-four pages to its general pathology and bacteriology, and the succeeding seventy-four pages being occupied by the latter in a consideration of its symptomatology and treatment. Dr. Victor Babes, of Bucharest, devotes the next sixty-four pages to a very full and complete article on Tetanus. The general

ology of Cancer, by W. Roger Williams, M.D., of Bristol, and, occupies the succeeding 210 pages, and the symptomgy and treatment, by W. B. Clay, M.D., of New York, is aced in eighty-five pages; so important a subject is here ably treated. Dr. W. Roger Williams, of Bristol, also has ted seventy-three pages to the general pathology of Sarcoand likewise Dr. Wm. B. Coley has considered its symptomgy and treatment in the succeeding sixty-five pages. Mant New Growths of the Skin, by Jno. T. Bowen, of Boston, y-two pages; and Malignant Diseases of the Female Geni- by Edward McGuire, of Richmond, Va., forty pages, and y full and complete index, double column, of over twenty , complete this, the most valuable number of the entire se- so far presented. While the entire sixteen volumes are comprehensive, thoroughly practical and altogether up to the importance of the subjects in Vol. XVII we cannot but der as invaluable.

OUS AND MENTAL DISEASES. By ARCHIBALD CHURCH, M.D., Proor of Clinical Neurology and of Mental Diseases in the Northestern Medical School (Chicago Medical College); Professor of Neology in the Chicago Polyclinic; Neurologist to St. Luke's Hospital, o.; and FREDERICK PETERSON, M.D., Clinical Professor of Mental iseases in the Woman's Medical College, New York; Chief of Clinic ervous Department, College of Physicians and Surgeons, New ork. 8vo, cloth, pp. 843, with 305 illustrations; price $5. W. B. AUNDERS, publisher, 925 Walnut street, Philadelphia, Pa.

his is a thorough and practical work on nervous and menisease, which has been written for medical students and itioners. It makes no claim to be other than a carefully ured text-book, which niche in the scientific and practical ature of the day it most satisfactorily fills. The literature eurology and psychiatry has been thoroughly sifted by the ors, and such digest revised in the light of their own pracand in teaching. They have presented the facts clearly, di- y and succinctly, notwithstanding the difficulty of condensuo so great and important subjects within the limits of a e volume.

t is not the joint work of two authors, but each—Dr. Church eurology and Dr. Peterson in psychiatry—has contributed

his part in the development of this single volume; each one solely responsible for the work in his own department.

An unusual number of illustrations for each department (from their own material, except where otherwise indicated) add largely to the value of the work, which is presented by the publisher in handsome, durable and suitable make-up and workmanship. The subject of mental diseases, considered in less than one-third of the book, is remarkably clear, thoroughly practical, and comprehensive.

THE SERUM DIAGNOSIS OF DISEASE. By Richard C. Cabot, M.D., Physician to Out-Patients, Massachusetts General Hospital. 8vo, cloth, pp. 154; price $1.50. WM. WOOD & Co., publishers, New York, 1899.

The most important factor in the successful treatment of disease is a correct diagnosis, and is not only of great satisfaction to both practitioner and patient as affording a greater degree of successful application of remedial measures, but, *per se*, the importance of being correct in knowledge of just what is the condition or character of the morbid affection is paramount. In many instances correct diagnosis is necessarily deferred, and anything that will secure an early and definite opinion will be hailed with pleasure. Among the greatest advances of recent days is a definite and technical study of the blood. So many important diseases, eventuating in quite different pathological conditions, in their incipiency, present many clinical features in common, and although Dr Cabot, in his preface, states that his excellent work is but a compilation, yet bringing together, as it does, in convenient form the results of the immense amount of work which has been done in serum diagnosis in the last few years, makes it especially and peculiarly valuable.

THE PATHOLOGY AND TREATMENT OF SEXUAL IMPOTENCY. By VICTOR G. VECKI, M.D.; from the author's second German edition, Revised and Rewritten. 8vo, cloth, pp. 291; price $2. W. B. SAUNDERS, publisher, 925 Walnut street, Philadelphia, 1899.

We make the following extract from the author's preface:

"When the first German edition of this work was published, in 1889, there was some commotion in the ranks of old and young medical fogies, who were indignant that anyone dared to resist their intellectual tendencies, refused to worship their superannuated gods.

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Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. By Hobart Amory Hare, M.D., Professor of Materia Medica and Therapeutics in Jefferson Medical College, Physician to the Medical College Hospital, etc. Vol. I. March, 1898. 8vo. [illegible] Lea Bros. & Co., publishers, Philadelphia, Pa.

We had occasion some months ago to notice in adv preparation of this work, which, from the first volume, need, we find to be truly "a well-told tale of medical pro all the lines of thought, told in each line by one well q to call only that matter which is worthy of his attention a essary to his success."

In Volume I we find the advances and developments ing to the Surgery of the Heart, Neck and Chest, ably c by J. Chalmers Da Costa, M.D., of New York; The Dis Children, by Alex. D. Blackader, M.D., of McGill Un of Montreal; Pathology, by Ludvig Hektoen, M.D., o Medical College, Chicago; Infectious Diseases, including ous Pneumonia, by Wm. Sydney Thayer, M.D., of Hopkins University; Laryngology and Rhinology, by A. Turner, M.D., F.S.C.S., Edinburgh; and Otology, by B Randolph, M.D., of Johns Hopkins University of Balti full and complete index closing the volume.

The work of the editor, Dr. Hare, is thoroughly d well, as he alone could do it. All in all, it will enable the to keep fully advised of the advances in the subjects com

THE SOUTHERN PRACTITIONER.
AN INDEPENDENT MONTHLY JOURNAL,
DEVOTED TO MEDICINE AND SURGERY.
SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.
DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

IMMUNITY AND SUSCEPTIBILITY.*

BY DR. I. A. M'SWAIN, M.D., PARIS, TENN.

All life has existed since the dawn of creation. The imperfection of human wisdom in failing to discern the infinitude of creation does not in any way refute the above statement.

The darkness of ignorance and superstition has in all ages militated against scientific progress, and has hindered the search for truth.

Self-conceit has ever stood as a wall of opposition to advancement and has refused to be divorced from errors because that would have implied retraction of past beliefs, and likewise demanded homage to the discoverer of a new fact, to both of which human nature enters her protest.

* Read before the Sixty-fifth Annual Meeting of the Medical Society of the State of Tennessee at Nashville, April 11, 1899.

Such a spirit, even though a truth be established beyond question, will hound the new way with all manner of persecution, with the cries of "crank," "fad," "hobby," etc. Yet, despite these obstructions, new light dispels the darkness, for

"Truth crushed to earth will rise again."

Medicine has been no exception to this prevailing custom of the world.

In the early centuries disease was supposed to have been the result of offending some one of the deities, and the sick were punished with exorcism, imprisonment or abandonment. Even at the beginning of the Christian era, disease was thought to have been sent as a punishment for sin. Still later, even within our own recollection, many diseases were attributed to "catching cold," "biliousness," "teething," "worms," "congestion," "child-bed" or "nervousness."

In surgery, suppurative conditions were regarded as inevitable, and the presence of what was called "laudable pus" hailed as a good omen; the suppuration, of course, was supposed to have been the immediate result of decomposing tissue, and had its primary origin within the wound. The doctrine of the spontaneous generation of parasites a product of decomposing substances and of certain diseased conditions, held a well-nigh universal sway until within the latter half of the present century. Here and there an investigator arose in opposition to this theory, but litte attention was paid him until such men as Pasteur, Pollander, Devaine, Lister, Tyndall, Koch, Klebs, Virchow, and a host of others established beyond question the fallacy of such a doctrine; and there is not to-day a scientist of any note that does not add emphasis to the ancient declaration that "in six days God created the heavens and earth, and all that in them is," and the theory of biogenesis is now universally accepted.

Bacteriology is now one of the institutes of medicine, and its study is at once essential and fundamental. Etiology cannot be understood apart from it.

The microscope reveals the presence of germs of disease in the air we breathe, in the water we drink, in the food we eat, in the earth on which we tread, in the clothes we wear and the beds on which we repose, and possibly in the medicines which

we dispense. Hence the germs of disease and its congener, death, have been sown by an invisible hand broadcast throughout the universe.

Within the past two decades discoveries have been made in rapid succession of a new variety of bacillus, and we seem to be on the threshold of the mystic unseen, which, by aid of a powerful lens, is to reveal a micro-organism to be the primal cause of most diseases, and medicine shall no longer be a blind experiment, but a rational and scientific application of remedies to a well-known cause of disease.

Why some persons are apparently able to resist certain diseases, but are peculiarly liable to others, and why under other circumstances this resistance or liability may be changed, and many other questions of a similar nature, may be considered under the general terms immunity and susceptibility.

It is known that there are two leading theories in regard to the maintenance of immunity, viz-, phagocytosis and the humoral theory. Both these have strong advocates, and each produce good arguments in support of their respective positions. The truth probably lies in the combination of the two forces, or at any rate they must act in concert; and assuming this to be true, we shall denominate this means of defence "normal vital resistance."

This principle of defence against the encroachment of pathogenic bacteria may be modified by several factors, a few of which we will notice:

1. Heredity.—This implies this peculiar immunity from or susceptibility to disease which is known to obtain in families. What constitutes this heritage? The answer comes from a study of those physiologic units called cells, of which the body is composed. Each cell is perfect within itself, having the functions of assimilation, growth, sensibility and means of defence against the encroachment of disease germs. The perfection of life then depends on the perfect balance and normal activity of these cells. Natural immunity must then depend on the perfect construction and normal activity of these primal seats of vitality. No one denies that we inherit physical conformation, mental and even moral traits, from our ancestry, and it is equally obvious that a peculiarity of cell structure is heredi-

[illegible] is the thing which con-
[illegible] the aggregation and arrangement
[illegible] the human body. Now, if the cells of
[illegible] of such a character as to resist the inroads
[illegible] disease, it is perfectly logical that the
[illegible] would be transmitted to the offspring.
[illegible] that natural immunity had been de-
[illegible] by disease or hereditary transmission on the part
[illegible] loss of immunity, and consequent suscepti-
[illegible] in obedience to natural law, descend to the chil-
[illegible], the germs of disease are hereditary. But the pe-
[illegible] construction and arrangement, together with
[illegible] action of the cells, is the heritage, and upon
the [illegible] upon which pathogenic bacteria find a
[illegible] for their growth, or one capable of resisting their
[illegible]ery observer is familiar with the truth that not
[illegible]h diseases as tuberculosis, cancer, syphilis, etc.,
[illegible]ut that a large number of diseases are influenced
[illegible] predisposition. Whole families are peculiarly
[illegible] fevers, or rheumatism, neuralgia, skin diseases,
[illegible]ctions, diseases of the heart, stomach, liver, bow-
[illegible]rain, bladder, ovarian and uterine disorder, diseases
[illegible] system or bones, diseases affecting the mind,
[illegible]it or the opium habit. Indeed, so great is this in-
[illegible] modifies the action of remedial agencies, as seen
[illegible]ll idiosyncracies.

[illegible] development and normal nutrition and activities
[illegible] being so essential to the preservation of natural
[illegible] factor that interferes with or deranges cell life
[illegible] diminish immunity, and in like ratio increase

many of these disturbing elements. We can no-
[illegible]w, one of which, on account of its extensive use, is
[illegible] demonstrated beyond cavil that alcohol enters the
changed, and as such comes in contact with the
[illegible]luces at once a change in their molecular arrange-
[illegible]es with their nutrition, and paralyzes their dy-
breaks up their normal distribution, and leaves
[illegible]en and inactive. Under its baneful effects the

leucocytes also disintegrate and are swept by the blood current into the capillaries and become massed and helpless in the meshes of the brain and other organs. Here, then, are two important factors in diminishing natural immunity—interference with normal cell action and the destruction of leucocytes.

The theory of phagocytosis refered to above without doubt does exercise a potent influence in maintaining immunity. Phagocytes are but leucocytes engaged in their work of destroying bacteria, Anything, then, that degrades or destroys the leucocytes must diminish phagocytic action. From observation this appears a most reasonable conclusion. That the power of the drunkard or habitual drinker to resist disease is greatly impaired is a fact recognized by all unprejudiced minds. With what trepidation does the physician approach a case of pneumonia, typhoid or malarial fever, and indeed almost all inflammatory conditions, in subjects addicted to the use of alcoholic liquors? Yet, strange but true, that so many of the text-books of medicine recommend the use of an agent, even when disease has already lowered the capacity of the vital forces for resistance, that will still further decrease the normal resistance. The cry of the cell is not for something to paralyze it, but for an agent to neutralize the toxin of the disease and assist in restoring impaired immunity. The writer is not an enthusiast, but begs to record his protest against the abuse of alcohol, both in health and disease. It cannot contribute to the former, neither does it have any curative action in the latter condition.

Again, immunity from a disease may be destroyed by the intervention of other diseases. The Koch bacillus may come daily in contact with a subject and ever lie dormant in the air passages, as long as the ordinary standard of health exists, But an attack of typhoid fever, la grippe, dyspepsia or pneumonia, may so lower resistance to the tubercule bacillus as to impair or destroy the immunity, and tuberculosis carries off its victim. Atmospheric vicissitudes and exposure of the body to cold and wet may be followed by pneumonia—not that these factors produce the disease or create a germ, but they are contributory thereto by decreasing the powers of resistance. The colon bacillus, which may always be found in the intestines and was for a long time supposed to be harmless, displays a wonderful power for

[illegible] in cases of ileo-colitis, septic peritonitis and other [illegible] disorders.

Again, the invasion of pathogenic bacteria, which, in the [illegible] selves though harmless, yet prepare the soil. This is observ[illegible] in the comma bacillus of cholera, and is a most important f[illegible] tor in the gastro-intestinal diseases of children during the su[illegible] mer months. More than thirty years ago Dr. W. K. Bowl[illegible] of Nashville insisted that cholera was produced by a spec[illegible] germ, and that the disease would not occur in anyone if total [illegible] stinence from all foods that could undergo fermentation was [illegible] served rigidly. The diet he prescribed was brown bread, bac[illegible] and sterilized water or coffee, and in a mongraph published [illegible] er the epidemic he proved in a large measure his views to h[illegible] been correct. Summer complaints in children are almost inv[illegible] ably superceded by errors in diet, impaired digestion and [illegible] fermentative bacteria. As summer approaches [illegible] to disease is impaired on account of the he[illegible] to craves fluids to quench his thirst, and instead of water [illegible] milk is resorted to. The stomach is distended w[illegible] milk charged with germs, fermentation increases, and pathoge[illegible] finding here a suitable soil, revel in their work of [illegible] The only rational treatment in such cases is to [illegible] the use of milk, wash out the stomach and bow[illegible] so as to secure a cleansing of all ferments, aust[illegible] by predigested food, give water freely, and use [illegible] protectives to subdue the inflammatory proc[illegible] the soil uncongenial to microbic invasion.

[illegible] climatic influence, race, dress, and many other thi[illegible] with natural immunity. In discussions in [illegible] antiseptic midwifery we often have the negro or [illegible] presented as a type of filth, yet it is urged that [illegible] sepsis follows confinement. To our mind this is [illegible] against the urgent requirements of asepsis in the pr[illegible] obstetrics, but does prove that this class of patients p[illegible] remarkable powers of resistance to bacterial infections.

In a paper read by Dr. Richard Douglas, President of [illegible] Surgical and Gynecological Association at Mempl[illegible] November, 1898, the author, after an able review of the ar[illegible] in reference to the bacteriology of acute general perit[illegible]

itis, states "That in the human being as in experimental animals, some other condition than the mere presence of pathogenic organisms in the abdominal cavity is necessary in order that peritonitis may be produced. Bacteria, alone and unaided by physical conditions are comparatively innocuous," and that "some other factor, mechanical or chemical, must be present in order to render the peritoneum susceptible to the invasion of micro-organisms;" and he asks, "Is not the disease supplying these conditions the source, the initial lesion from which bacteria gain their power, and such disease is the true cause."

We beg to suggest that a study of these factors underlying the principle of immunity comes in well at this point, and may throw light on a problematic subject.

Advanced civilization carries with it a multitude of requisites, many of which seriously interfere with cell growth and function. Habits of dissipation, the fashions of dress, intemperance in eating and exercise, and the resulting constipation so common among women, to which we might add practices and customs which unduly excite the emotions, sexual excesses, and attempts to deprive nature of the legitimate fruit of the marriage relationship—these factors, taken in connection with hereditary weakness handed down through a long line of ancestors, produce a vast decrease in the resisting proteids of the body to the inroads of micro-organisms.

The Indian and negro, as well as their white sisters, who from necessary environments are free from such debilitating influences, are blessed with a large degree of immunity from bacterial infection. Is it not resonable, then, that this normal vital resistance has much to do with microbic invasions, and must be considered in an attempt to classify the bacteriology, not only of peritonitis, but all other inflammations of bacterial origin, and may we not yet hope for some remedial agency that may assist in the restoration of immunity when lost, and render the soil again unfit for the work of the germs of disease.

Again, there is an immunity which results from a gradual exposure to pathogenic bacteria. An individual born and reared in a malarial or yellow fever district is said to be acclimatized, and if they are infected with the germs, easily recover; whereas one imported from a healthy district into an atmosphere

[illegible]

[illegible]

[illegible]

[illegible] bacterial [illegible] involves [illegible] development [illegible] obtaining of antitoxins and antibodies [illegible] prevented from gaining [illegible] immunity.

[illegible] recommends the use of quinine [illegible] as a preventive of malaria [illegible] as far as they are known to [illegible] of the bacterial diseases. The [illegible] is diphtheria antitoxin, which [illegible] in threatened epidemics of the disease. There are a few other serums of some utility, and the experiments are going forward with reasonable hope of largely increasing this class of remedies.

Ad. The restoration of immunity when impaired or lost is the more immediate object of the practitioner, for on this field are his battles, and here he records his victories or defeats. The extent to which he may be able to combat an invisible army of invaders will be the measure of his usefulness and success in the management of bacterial diseases. His object in this regard is two-fold: 1st --Destroy, when possible, the bacteria, and 2d, prevent the toxemia produced by the absorption of the effete products of microbic action. To do this intelligently bacterial diagnosis is indispensable. To *know* nothing of the etiology is to do nothing that will with any degree of certainty benefit the patient. All else is haphazard. It may do good—it may do harm.

To carry out the two objects mentioned above (the diagno-

sis having been settled), it is necessary that any treatment that will meet these two indications must be resorted to early in the disease. The well-known fact that the bacteria multiply with such astonishing rapidity, as well as the fact that ptomaines are so readily absorbed and thus produce the constitutional toxemia and the disintegration of the organs and tissues of the body, is sufficient proof that any treatment looking to the destruction of bacteria or to the prevention of their poisonous effects, must be carried out at the earliest practicable moment. Just at this point rests the success or failure of this class of remedies, and while the theory of the action of antitoxins is still an open question, their utility is evidently based upon their use before that period of disintegration or necrosis which ultimately results in those diseases.

To build up the waste or in other words, to trust the after-effect of pathogenic bacteria, implies the general and special medical, or medical and surgical, management suited to the nature of the trouble or the particular organ or tissue involved.

The physician of to-day, with improved methods of diagnosis, is standing on the tiptoe of expectancy, looking toward the vast laboratories and biological institutes of the world to bring to light some agent that when brought in contact with the germs of disease will either destroy them, neutralize these products, or render the soil unfit for deadly work.

The future of scientific practice lies in the direction of what is known as organ therapy.

The day of the "medicine man," with his roots and herbs, his sweating and purging, his diagnosis of "teething, biliousness and nervousness," is practically at an end.

Thorough diagnosis, bacteriological and clinical, must be the first thing. If the disease then is known to have been the result of bacterial infection, *use at once* the antitoxin of that special bacillns. If such antitoxin has not yet been discovered, let us hope that it soon will be, and in the meantime let us not become obstructionists and opposers of the *new way.*

3d. The third object, by no means the least important—that of humane and sensible isolation and quarantine—cannot be discussed in this paper, already too long.

As medical men, to whom the world looks for relief and

times of disease and suffering, we should contribute
n to elevate mankind physically, mentally, socially
y, increase his longevity, bring to pass the sacred
his days shall be three-score and ten, and even four-
ason of strength, and then as he, on account of nat-
makes his exit from the stage, may it be to make
generation yet nobler and better, until the race shall
to that degree of perfection of which the millenium
most natural result.

CHRONIC GASTRITIS.*

W. C. BILBRO, M.D., OF MURFREESBORO, TENN.,

Materia Medica and Therapeutics in the Medical Department of the University of Tennessee.

dition named above may be defined as a chronic state
d digestion associated with an increased quantity of
ualitative and quantitative changes in the gastric
eblement of the muscular coats of the stomach where-
l is retained in that viscus longer than is normal, and
normal changes in the structure of the mucous coat of
h, producing a chronic state of malnutrition and a
on to toxic poisoning.

begin this paper with the statement that the major
of diseases that afflict mankind are due in a great
either errors in the kinds of foods taken, to excess
, or to imperfect oxidization, assimilation and excre-
educing the inherent resistance to the action of germs
nes of contagious and infectious diseases.

fect results of investigation as to the etiological and
l factors in disease, enables us to catch the shadow of
certain arterial atheroma, with its resulting hopeless
hanges that follow in the wake of the epicure and
dulger in the liquid fruit of the sideboard.

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the Sixty-fifth Annual Meeting of Tennessee State Medical
il 12, 1899.

To my mind the important indications in the treatment of all diseases are: First, antisepsis; second, nutrition, and third, elimination. The second of these we propose to treat more especially, for it is my observation that more suffering and discomfort, accompanied by incapacity to do mental as well as physical labor, is caused by want of nutrition dependent upon pathological changes in the gastric mucosa. I shall not attempt to investigate the etiology of chronic gastritis further than to simply mention that most cases are superinduced by excessive quantity and too frequent eating of overstimulating food. The beginning of chronic gastritis is usually insidious, and often has advanced to a considerable degree before any notice is taken of its presence or any radical measures are resorted to for its removal.

The clinical picture usually presented is most often one of pain on pressure over the epigastrium and under the lower end of the sternum, which radiates to the esophagus and to the region of the heart; distress and oppression after meals; great thirst; broad, white-coated tongue, sometimes red tipped; increased pharyngeal secretion; pyrosis, fermentation, constipation, vertigo, headache, and irritable temper. These are only a few of the many symptoms that aggravate the existence of such unfortunate persons.

Each case, as in all other diseased conditions, should be especially individualized and studied and traced as though it were the only one in existence—there are no two alike, no two require the same diet or medicine. There is absolutely no routine treatment successful, hence we are often taxed to our utmost resources to know the exact method to adopt in the management of these cases.

The pathological stagnation produced by the atony of the muscular layers of the stomach results in malnutrition and insufficient chemical integrity, followed by dilatation. The condition is characterized by a diminution of hydrochloric acid and auto-intoxication or ptomain toxemia, which to my mind is the most serious factor in the disease. Many deaths from so-called heart failure are directly due to the toxic matters absorbed from a stomach whose glandular and muscular structures are impaired by chronic inflammation.

A very ingenions method of determining the solvent and di-

; power of the gastric juice has been devised by Quint
'es methylene blue in a capsule of gelatine, This cap
ring matter is taken after a breakfast consisting of an
of bread and a cup of coffee. Two hours later, an
lling intervals of ten or fifteen minutes, the patient pa
. quantity of urine and notices the time when this be
bit a green discoloration. Normally this should occu
wo hours, but when there is an atrophic condition of
lar structures of the stomach it may be delayed five,
seven or eight hours, owing to the incapacity of the
ce to dissolve the gelatin capsule.

successful treatment of chronic gastritis depends
on the patient's resolution and perseverance in carry
instructions he receives. Mental influences go a g
the treatment of dyspepsia. The victims are morb
ective. They eat without enjoyment because they
ish will disagree. After the meal is over they look
pain and discomfort they have ever experienced
usually exaggerating each symptom. There have b
drugs prescribed in this condition, but so far as my ob
goes only a few are scientifically and practically of
l benefit. Arsenic in small doses long continued is
most potent drugs in any mucoid inflammation of
h and bowels. Nux vomica is indicated, but should
n larger doses than are usually prescribed or given by
iters of the text-books—not less than 20 drops of
e, or from one-twentieth to one-sixteenth of a grain
line have ever been of any benefit in any of my ca
chloric acid is almost always admissible and useful.
y assists in digestion and assimilation, but is decide
tic and prevents ptomain toxemia and auto-intoxicat
is most useful for one particular reason if given at
me. We all know that the glands of the stomach furn
rsecretion of a tenacious, ropy, alkaline mucous, wh
to the mucous coat and prevents the food from exci
retion of the gastric juice, and it neutralizes and preve
er from reaching the food The food, therefore, is
for hours in an alkaline medium, where it undergoes n
and fermentation, which impede digestion very de

edly. This can often be gotten rid of by giving papoid. My practice is to invariably give fifteen grains before meals in a glass of hot water. It dissolves the unhealthy mucous coating of the stomach. It is also claimed for it that it is antiseptic and will prevent fermentation. In cases where the stomach cannot be cleansed by this means, lavage is an important factor in our treatment. The object is to thoroughly clean the stomach, and nothing is better than papoid and water, syphoned out by the stomach tube, the patient not being allowed to take any nourishment for thirty minutes or an hour after the washing, so as to give the stomach time to recover from the shock and rest. Diet is the most important element in our treatment, and this must be strictly regulated; all irritating or indigestible food must be strictly prohibited, and only that which is most easily digested and assimilated allowed. The individual difference in people is more marked in the matter of diet than any other peculiarity. One person will digest salt and smoked meats more easily than he will fresh meats. Fish and soft-cooked eggs disagree with some persons, but others can digest them without difficulty. Some can take dried smoked beef cut in thin slices and eaten rare, which is palatable and easily digested. Some can digest lean boiled ham, dry bread, thoroughly-toasted bread crust, or plain crackers. The purest, most carefully-baked wheat bread from hard white wheat flour, with one-third bran, agrees better than the coarser variety of whole wheat. Milk does not agree with every person, especially sweet milk. I have often found buttermilk or koumiss agree better. Milk alone, or in some cases diluted with one-fourth lime water, given in small quantities and at frequent intervals in extreme cases, will generally be found to answer, and may be continued for a long time to the exclusion of all other foods, with great advantage. Milk may disagree, as may be seen by its causing irritation and the passage of undigested caseine; but if it can be taken, it is quite sufficient for nutrition; and by the time the patient finds that he is taking three or four quarts a day, he will have realized that he obtains from it all that is needed to support health and strength. It is hardly necessary to say that the milk should be drank very slowly, allowing each portion to form a separate caseous mass. All food shoutd be eaten slowly. Tea and coffee, as a rule, I

[illegible] and could be avoided: aicnotic [illegible] [illegible] in cases of habitual drinkers: [illegible] water is possibly admissible. [illegible] administration and in the quantity of [illegible] is most essential. The greatest care should be taken not to give an excess of anything at a time, and to avoid [illegible] appears to disagree. The return to [illegible] should be very gradual and tentative, lengthening the interval until the stomach has completely digested and gotten rid of the preceding meal—this is sometimes as long as seven or eight hours. I have often given decided benefit from a flannel bandage around the stomach. This insures more warmth, and is an excellent support to the weakened muscular coats of the dilated stomach. Massage of the organ three times a day is most beneficial. Deep kneading and rubbing of the stomach helps to relieve the passive congestion and stimulates muscular contraction. In case of extreme atony of the muscular coats, a strong current of electricity will often prove useful. The chief indications are to restore the healthy functions of the stomach by giving rest, promoting absorption and increasing the muscular contractility, thereby eliminating that portion of the food that is no longer amenable to gastric digestion.

Selections.

DO PHYSICIANS AND PHARMACISTS LIVE ON THE MISFORTUNES OF HUMANITY? -This question is one that probably suggests itself to all reflective persons, more particularly those engaged in medicine, whether as physicians or pharmacists. It is not pleasant to think that we live on the infirmities of the people, that the necessaries of life, the luxuries and pleasures of life, are purchased by us with money derived from the sufferings of men, women and children; that each coin in our pocket carries with it a moan; that the bread we eat is made possible by physical pain, misery, perhaps penury and want.

I repeat, this is not a pleasant idea if we think only this far

into the problem and then rest. But the reflective mind is not warranted in beginning at the point herein suggested, although most questioners do not start there. Neither is it proper to end the meditation where it has been closed, although a few go beyond that point. There is a beginning which antedates the period of sickness; there is an end in which the physician is concerned, beyond the point that marks the return that comes from the sufferer to him engaged in making and practising medicine. Let us look more deeply into this problem of life and death, of sorrow and misery, that seemingly clings to the money with which our bread is purchased. First in order comes the question: Are physicians and pharmacists desirable to the comfort of man? Are they useful citizens?

There can be but one answer, judging from the acts of persons in need of assistance, and for this answer a question may be used. What are more necessary to humanity, what more of a boon in times of need, than professional medical attendance and reliable medicine? I grant it that, if you will leave the answer to the people who ask our services, the reply will be that next to the man who produces our bread stands he who gives us professional medical advice and medicine.

Go a step further, and ask: Who is more welcome to our homes than the physicians? Ask yourself, and, if because of of prejudice or delicacy you shrink from answering, ask whomever else you will, and the prediction may safely be made that the answer will point to no other visitor. But, even if this is so, the reply does not controvert the argument that uprises concerning the living we seem to get out of human misery and misfortune. Do we sacrifice anything? Do we give to mankind of that which we possess—that which, did we devote our faculties to, as do business men, would make us independent of fees? Let us see.

What does it require to make a qualified physician or a pharmacist? I will assert, in reply, that it is possible to become either only by means of long, expensive and exacting courses of work, and by self-application that begins in youth and ends only in the infirmities of age. The professional career of a physician or a pharmacist is a life of sacrifice to which no civilized community would consent for a portion of their people to make, in poverty, and want, in behalf of the nation at large. A men-

work and a life of exposure is this life of the doctor and the ggist, among substances and conditions more distasteful than known to any other profession. It may be safely accepted t no fair-minded person would presume to ask such sacrifices hout a just return to him whose education and whose caer- have been devoted to so laudable an object as the protection he health of his fellowmen. Compared with other lives, his ne of sacrifice; and men know it.

But what return do men make for this life study? Natur- in that which other men accumulate while the physician and rmacist are devoting their time to their service and spending r money in their behalf. The lawyer, the merchant, the ean, the husbandman, ply their vocations and profit thereby money, which is the common medium of exchange, or in prop- that can be changed into money. While they do this, the sician and pharmacist unite in caring for their health—each ing a necessary part in the scheme of protection. Never is weather too cold or too hot for the physician to face the ele- ts; never is the confinement of the shop too close for the rmacist to stand his watch. The one is ever on duty, the r is seldom off duty; together they offer their services in lf of men and women who in other walks are serving their ul parts in the evolution of mankind.

But I have not as yet antedated the superficial thought con- ing the nature of the living that physicians and pharmacists e make in this orderly scheme of evolution, in which the we take seems, from a superficial view, to be that of preying the misfortunes and infirmities of mankind.

Does the final act in any constructive process in nature dom- those that preceded? Are the ripened fruit and grain de- ent alone on the end reaction that produces perfect starch ules in the one, and finally changes acid and astringent es in the other into sugar and glucose? Is not the process of ination or of metamorphosis of tissue as the plant grows, the slow accumulation of fibre, pulp, shell, seed, and even- the production of the insipid immature fruit, as important e constructive scheme of nature as is the end reaction that s gives birth to flavor and produces the delicate stimulus that the palate? Indeed, when we step into this palace of

thought, can we not perceive that the sunshine and showers that fell in the days and nights that have passed were not less important to the perfected fruit than is the final touch of the sun ray that at last in a single day ripened the plum or peach, or the white frost that turned the acid of the wild grape into sugar and ended the constructive scheme that gave birth to the perfect nut?

But can we truthfully compare the work performed by the physician and pharmacist, in the constructive and reconstructive scheme of life, to that of nature in the construction of her life-supporting products? Should we place their influences with the final sun touch or the frost that ushers in the winter? Accept that view, if you will, and our part in life becomes none the less a necessity. But such a connection cannot, in my opinion, be drawn, for the medicine man is called in the beginning as well as in the end of the play of life. Not only is this true, but the the art of the pharmacist and the skill of the physician are drawn upon whenever through neglect or self-abuse of the afflicted person abnormal conditions arise. We are asked to help restore the person to a normal condition, or give ease and comport to him who suffers. We are usually sought in time of trouble, it is true, and necessarily we often witness the helplessness or sufferings of men in the presence of decrepit age or broken health rules. Our advice and selection of proper remedial agents are constantly solicited to carry the sufferer safely over the danger line and into periods of subsequent strength and healthfulness.

But as these are periods of distress, the question still stands: Do we not live on the misery and misfortnne of the people? Let us see. The sufferer calls on us when he wishes advice concerning a present physical trouble, and when he desires us to give him suggestions as to how he may avoid future trouble. We made a bill of charges, and the bill is paid with money that was made in health—health maintained, perhaps, by reason of professional service and remedial agents previously given him. The physician's care, the pharmacist's remedial substances, constitute the bridge on which the sufferer passes again over and into a period of health and prosperity; and perhaps had it not been for this professional aid there would have been neither future health nor prosperity. The afflicted person does not give his money

because of his sufferings, but because humanity's friend, the physician, relieves his pain and guides him aright. An eye afflicted by an accident and then saved by an oculist stands as testimony to the fact that the physician did not live on the misery of that man, but saved him from further suffering. The child who recovers from diphtheria by reason of the physician's care, and who becomes healthy thereafter, silently voices the fact that the professional bill paid in mature life to another physician is taken from money that was made possible through previous professional care. The misery that is saved humanity by the the associated art of pharmacy and the profession of medicine is great in comparison with the actual suffering that would have been had not men devoted their lives to the study of remedial effects, sanitary conditions, and disease diagnosis. The money that is paid for professional fees and for medicine is small in comparison with the amounts laid up by men whose incomes have been made possible by the service of those who sacrifice their opportunities in commercial channels in behalf of these business men.

It is thus to be seen that, while it must be conceded that the aid of these professions is solicited in times of distress, the object is not to ask the physician to partake of the fruits of present or of past misfortune, but to relieve the sufferer's pain and make possible a subsequent period of health and prosperity, in which the physician rejoices. While the fee is seemingly paid for visits made in time of sickness, the money so paid is not derived from gains dependent on his affliction, nor is it dependent on the sufferer's pain, but comes from wealth laid up in periods of health, that, as has been stated, are in many cases made possible by the previous care and advice of the same physician. No, physicians and pharmacists do not live on the ills of humanity; but of necessity—and for this they are to be pitied—they witness much suffering that humanity heirs or invites. Their part is not to create, but to alleviate, suffering. The physician takes money, it is true, from the men he serves, for money he must have, both in order to live as men must live if they serve their part in life, and to recompense him for the money he has spen- in his search for knowledge that can teach him to do this good.

But he gives back manifold the amount he receives, and if act counts were balanced it would be seen that men return but a trifle of the money they make by reason of the health and strength in which they rejoice through his services.

It will be perceived that I accept that medicine and professional services are of use in disease and contribute to the health and happiness of men. While it is unquestionably true that a few persons recover in spite of vicious or of wrong medication, and that others occasionally suffer injury from improper dosage or surgical operations based on erroneous diagnosis, yet I grant it that in the aggregate humanity reaps great benefit from the devoted attention of physicians and pharmacists. Were this not the case, money could not induce a multitude of conscientious men whom I know to remain a single day as members of the profession of medicine or as votaries of the art of pharmacy.—*Prof. John Uri Lloyd in The Coming Age for April*, 1899.

ANTISTREPTOCOCCIC SERUM IN EPIDEMIC CEREBROSPINAL MENINGITIS.—C. P. McNabb, Knoxville, Tenn. (*N. Y. Med. Journal*). From the facts that the diplococcus intracellularis meningitidis is found almost exclusively in the multinuclear leucocytes, that the exudate is composed largely of multinuclear leucocytes, that these leucocytes play an important role in the formation of purulent collections, and that pus is a pathological factor of such prominence in cases of death from meningitis, he was led to believe that benefit might occur in cases of epidemic meningitis from the use of antistreptococcic serum. A number of violent cases of this disease had been seen by him during the few weeks previous, and he had observed the futility of all the ordinary methods of dealing with them, so resolved to try the serum in the next apparently hopeless case that came under his care. He did not have the courage to use it early, not wishing to experiment on a human being as long as he saw a ray of hope for recovery. On January 21, 1899, he was called to see Mrs. S. B., aged 24, in consultation. Her illness began on January 19, when she awoke with a chill, pain in the head and neck, nausea

The muscles of the neck soon became sore and
ain in moving the head. The attending physic-
mel purge and morphine to relieve pain. When
ner she was moaning with pain, head retracted,
iconscious, conjunctivæ red, eyelids swollen, pu-
at responding equally to light, face flushed, her-
around mouth, limbs flexed, right knee painful
emperature 100° F., pulse 50 and respiration 34.
was cerebro-spinal meningitis. Mustard was ap-
ne and ten drops of a saturated solution of pot-
given every six hours, with ¼ gr. morphine when
lieve pain. On the fifth day she rapidly grew
ulse rose to 160, her temperature to 102.5° F.,
came shallow and very irregular, there were mut-
n, complete unconsciousness, and involuntary dis-
owels and bladder. In the evening 2½ dr. of an-
serum were injected into the subcutaneous areolar
bdomen. One-thirtieth of a grain of strychnine
ry three or four hours, and an ounce of whisky
rs. Next morning a second injection of serum
the strychnine and whiskey continued. In the
'clock she was quite rational and calling for food,
e 20, her temperature 98.5° F., and her pulse
n in the head was very much easier, the neck still
Another injection was given, and the whisky and
tinued, and from that time on she made a slow but
covery.

ry 6 the author saw a second case in consultation
. This was a young man of 22. The pain, rest-
omiting were severe from the beginning, the delir-
n defiance of free morphine injections, and on the
tation occurred he was in deep coma, the limbs
onic spasms; the head retracting, the neck stiff as
flushed, the conjunctivæ congested, pupils con-
e swollen, jaws closed like a vise, axilla tempera-
ulse 80 and weak, respiration 36, trunk thickly
petechiæ and purpuric spots. The diagnosis was
meningitis of the fulminant type. An injection
given, and next day he was rational, but his

neck was stiff and his muscles sore and weak. A second injection of serum was given. By noon he wanted to sit up. At 6 P. M. he did not feel so well and his nose bled. Another injection was given and strychnine continued. On the evening of the next day he was restless and semi-conscious, the right arm was paralyzed and the right leg partly so. The bladder was full of urine that had to be withdrawn with a catheter. Whisky and strychnine were continued and the serum stopped, as the doctor was satisfied that it could not relieve the cerebral hemorrhage which he was sure had occurred. At 6 P.M. the coma had deepened, the right leg was completely paralyzed, pupils dilated and fixed, dilatation of the left greater than that of the right, temperature subnormal, pulse 130 and thready, respiration irregular and noisy. On February 9 at 12:45 P. M. death occured, but no autopsy was allowed. The author believes from his experience that the serum benefitted his cases, and that one could be produced that would have a decided effect in controlling the terrible toxemia of meningitis as well as controlling streptococcic infection, which the one he used probably did. He says that if the results he had were merely coincidental, it was entirely unlike anything he had before experienced in cases of that kind.—*Merck's Archives.*

"CATCHING COLD."—What is really meant is catching microbes. Nansen and his men were for three years in the arctic regions exposed to cold, to wet feet, and to excessive fatigue, but no one of them "caught cold." With clothes so wet with perspiration that they froze by day into a solid shell of ice, even cutting into the flesh, they did not catch cold. The first hour in their sleeping bags was spent in thawing out the the frost water of the day; they lay shivering until their clothes became wet and soft and finally warm and comfortable. This day after day of hard labor and no cover· yet they did not take cold. Nansen said: "There is no doubt that 'cold' is an infectious disease." Once they got to Norway and lived in houses, they took cold; that is, they suffered microbic invasion. Such is the experience of all northern outdoor dwellers. If a ship comes to a secluded group on some Scotch island, they are all seized with

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NEPHRITIS: HEPATIC
David J——, Stam-
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heart also was enor-
disturbed; there was

systolic mitral insufficiency; the whole complicated with occasional attacks of angina pectoris. Had been constantly under treatment for twelve years, with little or no relief.

January 27th, he was put on a drachm of bovinine in milk and lime water every three hours; also one grain calomel, night and morning; and a teaspoonful of syrup hydriotic acid every three hours. On and after the 29th, rubber bandages were applied every morning and removed at night. The most marked improvement followed; the œdema rapidly disappeared; the heart action was greatly improved; and weight was reduced from 197 pounds to 160 by the 19th of February. February 3d the bovinine had been increased to two teaspoonfuls every two hours, until February 10th, when examination of blood and urine showed decided improvement, and arrest at the source of fatty degeneration; albumin disappearing, the proportion of red cells to white being thirty to one, and the red cells having risen in number to two-thirds of normal, with a marked improvement in general condition corresponding. The manifest operation of the bovinine had been to set up healthy proliferation and nutrition of red cells, and thus nourishing healthy tissue, to prevent the abnormal deposition of fat in its place. In a case so exhausted of vitality by long disease and old age, this phenomenon is certainly remarkable and of great interest to physicians.

After the above, the dosage of bovinine was made a wineglassful every three hours. February 23d, the patient left the hospital on foot, with but half of one per cent. of albumin in his urine, and no fatty cells, by microscopical examination, a good allowance of red blood cells and hæmaglobin, for his age, and feeling well. He is still kept on bovinine, and watched, and no relapse will fail to be reported. When last seen in March his improvement was confirmed and continuous; no œdema or angigina pectoris; appetite good, and sleep undisturbed.—*Ex.*

A Case Treated with Unusually Large Saline Infusion.—At a meeting of the Section of Obstetrics and Gynecology of the New York Academy of Medicine, Feb'y 23, ult., Dr. J. Riddle Goffe reported the following case: The patient, a woman of 28 years, had been seen by him on December

23, 1898. She was three months pregnant, and had been suffering from serious vomiting throughout her pregnancy. She had been nourished entirely by rectal injections during the three weeks preceding his first visit. She was nervous, anxious, and almost pulseless. Only three ounces of urine had been passed daily for several days, but the urine had been normal except for a very small quantity of albumin. Dr. Goffe had agreed with the attending physician that the uterus should be emptied of its contents. This had been done, and the uterus packed with gauze. When the patient had recovered from the anesthetic the vomiting had not ceased and the kidneys had not functionated properly. The next day her condition had been desperate. A current of decinormal saline solution at the temperature of 110° F. had been allowed to run into the median vein, with the most satisfactory result. The infusion had been continued until a total quantity of five quarts had been injected. Then she began to perspire freely. As there were no unpleasant symptoms, the infusion had been continued until a total quantity of five quarts of saline solution had been infused. It had then been stopped. About three hours afterward the patient had passed thirteen ounces of urine, the first for forty-eight hours. It had contained 50 per cent. by volume of albumin. The next day she had passed 83 ounces of urine, and since then her recovery had been uninterrupted. Forty minutes had been occupied in introducing this very large quantity of saline solution.—*Medical Record.*

THE SURGICAL TREATMENT OF VARICES OF THE LOWER EXTREMITIES.—In a recent article by Kraemer the etiology and treatment of this condition have been treated in full. He excludes mechanical causes and acquired lesions of the vein wall, and believes the latter condition to be always a secondary one. There is believed to be something in heredity, as the typical case presents certain characteristics, such as excessive stature—long extremities—knock-knee and flat feet—all of which point to congenital anomalies. The author therefore concludes that in these cases there is a congenital defect in the saphena, which consists either in the absence or diminished supply of the normal

valves. This view has been confirmed by the examination of several excised veins. The three most popular surgical procedures are:—the ligation of the saphena according to Trendelenburg—the radical extirpation of the vein as practiced by Madelung, and the excision of only a section of the diseased vessel. In the case of the first there are many relapses, though the latter are greatly exceeded by the cases which recovered. Thrombosis and embolism were also more common with this than with other methods, though fatal results are rarely observed. As regards the method of total extirpation, the data are insufficient, though the reports are uniformly favorable. Every surgeon of experience is well aware of the unsatisfactory results of the expectant or purely mechanical methods of treatment, and has come to recognize the fact that a vessel once enlarged or dilated can never regain its original size or calibre. In the well-marked cases, therefore, one may feel justified, in the light of recent investigation, to recommend some of the radical procedures above noted, as offering the only possible chance of recovery.—*New England Medical Monthly.*

A Hygienic Decalogue.—The following is taken from the *Kancet* of February 11th:

"Dr. Decornet of Fertè fur Aube, France is announced as the winner of a prize offered by the extensive and well-known publishing house of Hachette & Co. for the ten best maxims for preserving the health, which were published in the 'Annual Almanac' issued by the firm. These are the prize maxims: (1) General Hygiene: Rise early, go to bed early, and in the meantime keep yourself occupied. (2) Respiratory Hygiene: Water and bread sustain life, but pure air and sunlight are indispensible for health. (3) Gastro-Intestinal Hygiene: Frugality and sobriety are the best elixir vitæ for a long live. (4) Epidermal Hygiene: Cleanliness preserves from rust; the best kept machines last longest. (5) Hygiene of Sleep: A sufficiency of rest repairs and strengthens; too much rest weakens and makes soft. (6) Hygiene of Clothing; He is well clothed who keeps his body sufficiently warm, safeguarding it from all abrupt changes of temperature, while at the same time maintaining

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[illegible] from [illegible] profession, from public men, men of business, and men of letters, but we believe [illegible] from our own profession. It [illegible] weight to represent the views of a man whose work has probably saved more lives than any other individual of this or any period in the world's history and who, moreover, as the few medical men of Great Britain, must feel the weight of his responsibility. It is not probable that either in speaking or in writing he uses the phrase from without full justification for so doing.—*Brit. Med. Magazine.*

A CASE OF CARCINOMA OF THE BREAST, TWELVE YEARS AFTER OPERATION.—A case was presented by Dr. William T. Bull to the Practitioners' Society of New York, Feb'y 3, 1899.

The patient was a woman who was operated on by Dr. Bull for carcinoma of the left mamma on March 19, 1887, about twelve years ago. The malignant disease was limited to the gland itself, the glands in the axilla showing no microscopic evidence of involvement; they were removed, however, but the more elaborate Halsted operation, as now done, was not resorted to, the pectoral muscles being left intact. The patient thus far had remained entirely free from any recurrence; she enjoyed perfect health and had free use of the arm on the affected side.

Dr. Bull said that four years ago he reported sixteen cases of cancer of the breast, with or without involvement of the glands in the axilla, in which no recurrence had taken place for three years after operation. Out of that number two have since relapsed, the remaining fourteen having remained free from a recurrence up to the present time. In every case the axilla was thoroughly cleared out.—*Medical Record.*

Night Sweats.—The treatment of night sweats in phthisis is very discouraging. The first thing to be thought of is atropine, either by the mouth or hypodermically. If it causes dry mouth it will have to be substituted by other things, and here the oxide of zinc with the extract of belladonna may be used. Aromatic sulphuric acid, or even ergot, may be tried. Agaricin is also a very good remedy which does not always fail in time of need. Frequently a combination of these remedies, and by alternating them, good results may be accomplished.—*Maryland Med. Journal.*

Comparative Losses in the Spanish and Civil Wars.—In April, 1861, President Lincoln called for 75,000 volunteers, but it was only after July 22, when his second call for troops was made, that the Federal forces were comparable in numbers with those recently called into existence. From July 22, 1861, until the end of November, less than five months, the medical reports, from regiments aggregating only 69,118 men, recorded a loss of 3,075 men from an average strength of 77,690 men, or 17.31 deaths out of every 1,000 men during that period, and

presumably more deaths occurred than were reported. In April, 1898, President McKinley called for 125,000 men, and later for 75,000, which, with the increase in the regular army, in the immune and other special regiments, made a total of over 270,-600 troops. Beginning with May, 1898,and including June, July, August and September, the medical reports, from regiments aggregating 151,685 men, record a loss of only 1,715 men in an average strength of 167,162 men, or 10.21 deaths out of every 1,000 men during the five months, as compared with 17.31 deaths out of every 1,000 men during the first five months of the civil war.—*Medical and Surgical Review of Reviews.*

For the Treatment of Chronic Morphinism.—Hirt recommends first of all total abstinence from morphine. The first three days are the most difficult for the patient to overcome; but once passed there is hope for recovery. During these three days chloral (forty-five grains) or trional must be administered to combat the insomnia consequent upon the withdrawal of the drug. If the sleep is restless, patient is given a warm bath of thirty minutes' duration, followed by a cold douche. On the fourth day begins the treatment by suggestive therapeutics carefully conducted, at first suggesting general harm from morphine, and eventually creating in the patient a feeling of horror and repugnance toward the poison. Out of thirty-five patients treated in this manner, twenty-seven were entirely cured, two committed suicide during the first three "terrible" days, the rest were lost sight of or relapsed.—*Boston Medical and Surgical Journal.*

Application of Picric Acid in Burns.—Dakhyle (*Le Progres Medicale*, January 7, 1899) believes that the best topical application to hasten cicatrization in burns is picric acid. It has no toxic effects upon children, and is inoffensive to adults. its application is recommended from superficial burns to those of the third degree. It is contraindicated in deep, old or suppurating burns, and in very young children. The technique which should be followed closely consists of antiseptic cleansing of the burn in a picric-acid bath of 1 per cent., with a careful preservation of

the epidermis. This washing is to be repeated, taking all possible care to prevent raising the epidermis. When burns are very superficial, remarkable cures have been effected by treating with ether or alcohol saturated with picric acid. In old or suppurating burns one can use picric acid and iodoform, thyol, and ichthyol.—*Univ. Med. Magazine.*

SCHLATTER'S CASE OF STOMACH EXTIRPATION.—The death of Schlatter's patient from carcinomatous metastasis fourteen months after the operation for extirpation of the stomach, gives an opportunity for estimating the value of surgical intervention of this radical nature. The patient evidently profited by nourishment to the extent of holding her weight and strength. She had a year's relief from the pain incident to a grave disease, and by all reasonable calculation her life was not shortened. Had the metastasis not occurred so speedily, the operation would have been deemed as satisfactory as that ordinarily undertaken for uterine cancer.

ICHTHYOL FOR PRURITUS.—A short time ago Mr. C——— came into my office complaining of a rash which had appeared on several parts of his body, parttcularly on the hands, arms, chest and back. The pruritus was intense, so much so that he was unable to sleep at night. I made the diagnosis of poisoning by rhus toxicodendron, and prescribed the usual treatment, without relief. Finally I made a lotion of one drachm of ichthyol in four fluid ounces of water, and directed that this be thoroughly applied to the affected parts upon retiring at night. The patient was at once relieved of the pruritus, and after three or four days the rash had entirely disappeared. I report this case because I have never before heard this drug recommended for this affection.—*M. M. Fisher in N. Y. Medical Record.*

THE FUNCTIONS OF THE LYMPHATIC GLANDS.—There is, perhaps, nothing particularly new in an article by M. Bezancon and M. Labbe (*Presse medicale*, February 15th; *Independance*

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The medical profession should and must be represented by a Surgeon-General of the United States, who is a member of the Cabinet, whose appointment shall not depend upon political patronage, but shall be made upon the recommendation of the medical profession, either from the State Medical Societies separately or through a convention of delegates from each State Society, such convention to be called by the President of the United States, and each set of delegates to be proportionate, numerically, to the population of the State represented.—*Extract from Editorial in American Gynecolical and Obstetrical Journal for April*, 1899.

KERNIG'S SIGN IN THE DIAGNOSIS OF MENINGITIS.—According to the *Massachusetts Medical Journal* for March, Netter (*Bulletin medical*) calls attention to the sign given by Kernig of St. Petersburg for the diagnosis of meningitis—a sign not previously mentioned by physicians. Netter has found it in 41 out of 46 cases studied by him—*i. e.*, in 90 per cent.

The patient is examined first in the dorsal decubitus and then sitting. In the first position it is very easy for the patient to extend the leg completely; in the sitting posture, however, the leg can no longer be extended completely. In very marked cases it cannot be extended beyond 90°, and in all cases not beyond 135° or 140°. But as soon as the patient lies down, complete extension is again easy. This phenomenon has not been met with outside of meningitis; no explanation is offered.—*N. Y. Med. Jour.*

AN APPLICATION FOR UTICARIA.—Wolf (*Clinique de medecine de Bruxelles*, 1898; *Riforma Medica*, March 21, 1899) gives the following as an American formula:

℞ Prepared calamine Zinc oxide,	} each	6 parts
Carbolic acid		2 "
Lime Water		60 "
Rose Water		130 "

M. For children, the proportion of carbolic acid should be reduced according to age—.*New York Medical Journal.*

THE TREATMENT OF PNEUMONIA IN VERY YOUNG CHILDREN.—By way of summary the author lays stress upon the following points in the treatment of pneumonia in very young children:

1. No depleting measures are ever admissible.

2. Hygienic treatment, including fresh air, proper feeding, and intelligent care, is of the utmost importance.

3. No unnecessary medication should be permitted.

4. Many annoying symptoms may be relieved by local treatment, such as the cough by inhalation, pain by counter-irritation, restlessness by the ice-cap or sponging.

5. Stimulants should be deferred until demanded by the condition of the pulse.

6. High temperature is much more safely and effectively controlled by the use of cold than by drugs.

7. Greater caution is necessary in the use of powerful stimulants than is generally observed.

8. Rest is quite as important as in other serious diseases.—*L. E. Holt, M.D., in N. Y. Medical News.*

USE OF NORMAL SALINE SOLUTION.—In all cases of loss of blood, sepsis after an operation, obstruction of the bowels due to lack of tone, or suppression of urine, the author advises the use of intravenous injections of normal saline solutions. A simple method of preparing the solution is a teaspoonful of common salt in a pint of pure water, boiled for half an hour and filtered through a sterilized towel, placed in bottles corked with cotton-wool. A two-quart bottle containing this solution, kept at a temperature of about 115° F. To complete the apparatus, rubber tubing, stop-cock and probe-pointed aspirating needle are required.—*Dr. H. T. Hanks in Am. Gyn. and Obstet. Jour.*

LISTERINE AS ANTISEPTIC.—According to some experiments made by Dr. A. T. Cabot (*Boston Med. and Surg. Journal*) as to the "Strength of Antiseptics," it was found that *Listerine* compares favorably with the most reliable agents for the rapid destruction of micro-organism.

FORMALIN FOR SWEATING FEET.—Gerdeck (*British Med. Jour.*) advocates the use of formalin in this malady. The sole of the foot should be painted with pure formalin three times a day; between the toes only once, and not at all on the dorsum of the foot. In addition it is useful to pour four or five drops of formalin in the boot and warm it; this serves to disguise the odor of sweat, and is also a good preservative of leather. The results are said to last for three or four weeks, when a repetition of the treatment is necessary. If the pure formalin is objected to, 2 to 3 per cent. solution may be painted on more frequently. The formalin acts as a deodorant and is non-toxic. The skin becomes as dry as leather, and no longer sweats. No harm was observed amongst the soldiers whose foot sweating was stopped by this treatment.—*Med. Age.*

Editorial.

THE TENNESSEE STATE MEDICAL SOCIETY.

The sixty-ninth annual session of the Medical Society of the State of Tennessee convened in the Hall of the Wednesday Morning Musicale Club on Spruce street at 10 a.m., Tuesday, April 11, with quite a large number of resident and visiting members present.

Dr. G. C. Savage, Chairman of the Committee on Arrangements, called the Society to order, and introduced the Rev. W. T. Manning, rector of Christ Church, who conducted the opening exercises, reading from the scriptures the parable of the Talents. He then offered an earnest prayer, closing with the Lord's Prayer said in unison.

At the conclusion of the devotional exercises, Dr. Savage introduced Gov. McMillin, who delivered the address of welcome.

The Governor said, among other things:

"It affords me great pleasure to welcome so distinguished a body. The greatest secular vocation is that of the physician. It is next to that of the preacher. It is wise that you have united in organization, because there is no better way to diffuse knowledge. It is important that your organization be kept up for various reasons. One especially, and that is to combat certain whims which creep into the best society. Take, for instance, that senseless antagonism to vivisection, not only senseless, but harmful. Akin to this is the belief that surgery should only be practiced

on the living subject. I do not believe in such stuff, for I think it better to practice on the dead than the living."

He then told of his experience with doctors, and cited humorous incidents of his early boyhood sicknesses. He said while on this line:

"I never saw a man who found out that his liver was out of fix that ever lived happy afterwards."

Continuing he said: "Yours is a great and noble calling, and I am very happy to welcome you to this great city, the educational centre of the South. I can hardly see what the State may not accomplish in the way of education. It is well to assemble in such a city. It is well for the medical profession to come together. And I again bid you welcome."

Dr. Savage then introduced Dr. J. A. Witherspoon, who delivered a welcome on behalf of the medical profession. He said in this city a great many scientific, political and religious conventions have met, but he dared to say that no convention composed of a nobler or a more self-sacrificing set of men ever met here than practicing physicians.

He paid a just tribute to the memory of Drs. Paul F. Eve and W. T. Briggs, and spoke in the highest terms of Dr. T. L. Maddin, and said Nashville and the profession were proud to have such men.

He rather bitterly arraigned the Legislature for their action in regard to the State Board of Medical Examiners, and in concluding his remarks said:

"The medical profession has always stood for that which is good and noble. If the pittance of money obtained was the only consideration, few of the physicians you see before you would be practicing to-day. This is not all, but it is the consciousness of doing good, of being able to hand back to the mother the withered form of her child and tell her that the disease which threatened its life is broken, and receive from her that smile worth more than a crown upon a king's head. It is for this that we practice medicine. It is not for money. It is for love of mankind.

"The legislators who have undone the work of this Society and the profession of this State are not the men who stand up and face yellow fever when it knocks at the doors of the State; they are not the men who enter the small-pox pest-houses; they are not the men who sit all night on their knees with the emaciated form of a child wrecked by cerebro-spinal meningitis.

"This is the lot of the doctor, and do you think he does this for money?"

The doctor then eloquently welcomed the members, and said the profession of this city, with hearts overflowing with fraternal love, greets you and bids you a cordial welcome.

Dr. I. A. McSwain of Paris then in a few words thanked Gov. McMillin and Dr. Witherspoon for their cordial welcomes. He said he was glad that Tennessee had a Governor who had convictions and the courage to express those convictions.

Dr. Savage made some announcements, including a banquet to be given by the local physicians at the Tulane Hotel. He then intro-

duced Dr. T. H. Marable of Clarksville, President of the Society, who assumed the chair.

The reading of papers was then taken up, and the first paper on the program, "The Hippocratic Oath," was read by Dr. A. M. Trawick, and was discussed by Drs. Thos. Menees and T. K. Powell.

"Immunity and Susceptibility" was the title of the next paper, which was read by Dr. I. A. McSwain, at the conclusion of which the Society adjourned until 2 p. m.

At the afternoon session the discussion of Dr. McSwain's paper was taken up by Drs. Murfree and Powell, and closed by the author. The paper in full will be found in the Original department of this issue.

The paper read by Dr. J. A. Crook on "Subcutaneous Rupture of Large Arteries from Contused Wounds" was discussed by Drs. Murfree and Cowan.

"The Treatment of Typhoid Fever," by Dr. Stephen Thach, elicited a lengthy discussion, participated in by Drs. Alfred Jones, J. A. Crook, T. L. Maddin, W. F. Clay, W. K. Sheddan, C. C. Sullivan, J. B. Cowan, T. J. Happel, J. A. Witherspoon, J. F. Griffin, T. Lanier, and closed by the author.

"Chorea, with Report of a Case Complicated with Pregnancy," was read by Dr. T. W. Gallion, and was discussed by Drs. W. F. Clary, J. A. Crook, T. J. Happel, Ewing, Savage, Cullen, Sheddan, and Powell, and closed by the author, when the Society adjourned until 8 p. m.

The night session was opened with a report of the Auditing Committee, delivered by Dr. Will K. Sheddan of Williamsport. The reports of the Secretary and Treasurer had been gone over carefully, and the committee found the affairs of those officers to be in excellent condition.

"Melancholia" was the title of a paper presented by Dr. B. W. Stone of Nashville. It was discussed by Dr. J. D. Hopper of Andrew Chapel, Dr. Deering J. Roberts of Nashville, Dr. W. Frank Glenn of Nashville, Dr. R. J. McFall of Cumberland City, Dr. J. A. Witherspoon of Nashville, Dr. J. B. Cowan of Tullahoma, Dr. J. B. Neill of Nashville, and the discussion was closed by Dr. Stone.

Upon motion of Dr. W. K. Sheddan, the courtesies of the floor were extended to Dr. W. F. Arnold of the United States Navy.

Dr. D. R. Neil of Nashville read a paper upon "The Motor and Sensory Areas of the Brain and Their Physiological Functions."

The following resolution was adopted after full discussion:

"*Resolved*, That the Tennessee State Medical Society, numbering in its active workers more than 400 practicing physicians of the State of Tennessee, and representing the large majority of the 3,000 or more physicians of the State, deplore the action taken by the Legislature in amending the medical statutes of this State, and the still further effort to repeal all medical regulations heretofore enacted by State Legislatures from 1889 to 1897. We would, as the representatives of organized medicine, respectfully ask that no further steps be taken to repeal the medical

laws of the State, feeling that such action would be a gross injustice done the medical profession of the State and a damage done her citizens in turning loose upon the different communities of the State a horde of incompetents who are now gathering from other States, whence they have been driven, to prey upon the people of this State.

"*Resolved further*, That a copy of these resolutions, duly signed by the President and Secretary of this Society, be presented to the Senate and House to-morrow morning, April 13, 1899."

Dr. T. J. Happel also offered a resolution protesting against the action of the American Medical Association at its last meeting at Denver, in regard to restriction of membership to graduates of colleges and professors of same, requiring four courses of instruction, which was adopted, and copies ordered to be furnished to the Association *Journal* for public cation, and one to the chairman of the Judicial Council and one to the Tennessee representative of Judicial Council of the A. M. A.

The Society then adjourned until 9 a. m. next day.

SECOND DAY.

The Society convened at 9 a. m. Wednesday, but many of the member not having reached the hall, interesting clinical cases were reported by Drs. G. C. Savage, T. C. Lanier, D. C. Nei, Jl. T. Herron and others.

Dr. T. J. Happel desired to know if anyone had operated on an epithelioma in so old a patient as one of 82 years.

Dr. T. W. Gallion reported a case of carcinoma of the thigh in a woman of 72.

Dr. R. Douglas reported cases of gunshot wounds of the abdomen.

The first paper was read by Dr. W. F. Rochelle on "The Medulla as a Speech Centre," which was discussed by Drs. Savage, Glenn, J. A. Crook and G. W. Price, all opposing the views of the author.

"Puerperal Septicemia" was the title of Dr. J. H. Preston's paper, which was discussed by Dr. W D. Haggard, Jr.

The Society then adjourned until 2 p. m.

The first paper at the afternoon session was by Dr. J. L. Crook of Jackson, "A Practical Suggestion Regarding Amputation of the Foot."

"Vesical Calculus in Women," by Dr. T. J. Happel, was discussed by Dr. R. Douglas.

"The Physiologic and Therapeutic Effect of Static Electricity" was the title of a very excellent paper read by Dr. G. P. Edwards, which was brilliantly and elaborately discussed by Dr. G. H. Price.

"Some Interesting Cases of Rectal Surgery" was read by Dr. A. B. Cooke.

"The Treatment of Pneumonia," by Dr. R. J. McFall, met with considerable discussion, participated in by Drs. Witherspoon, H. B. Bate, Deering J. Roberts, T. J. Happel, Alfred Jones, Sheddan, Wilson, J. S. Nowlin, and closed by the author.

The paper of Dr. Richmond McKinney of Memphis on " The Cause, Nature and Treatment of Laryngitis in Singers," was discussed by Dr. L.

B. Graddy, J. B. Neil and Herron, when the Society adjourned until 8 p. m.

"Chronic Gastritis" was the title of a brief paper by Dr. W. C. Bilbao, which will be found in this issue, and which was the first paper of the night session. It was discussed by Drs. Nowlin, Witherspoon, Holtzclaw, Griffin and Glenn, when the Society adjourned until 9 a. m. next day.

THIRD DAY.

The State Medical Society reassembled at 9 o'clock Thursday morning, and the reading and discussion of papers was resumed.

The first paper read was by R. E. Fort of Nashville, on "Report of a Unique Case of Gunshot Wound of the Abdomen," which was discussed by Drs. R. Douglas, W. K. Sheddan, J. L. Crook and Duncan Eve.

The hour for election of officers having arrived, Dr. D. E. Nelson of Chattanooga was elected President, Drs. G. M. Bazemore of Cleveland, G. W. Moody of Shelbyville, and M. M. Smith of Cedar Chapel. Vice-Presidents, Dr. W. D. Haggard, Jr., of Nashville, Secretary; and Dr. W. C. Bilbro of Murfreesboro, Treasurer. The entire list, with singular unanimity, was elected unanimously and without any opposition—a remarkable feature, indeed, of the meeting.

The city of Knoxville was selected as the next place of meeting.

Dr. Deering J. Roberts of Nashville offered certain amendments to the constitution and by-laws, which lie over for action at the next annual meeting. Briefly stated, they comprised a change of date of meeting to first Tuesday in April. changing election of officers to 3 p. m. on second day of meeting; and providing for Veteran Members, composed of members who have been in regular membership for 25 consecutive years, who shall be known as Veteran Members, entitled to all privileges of regular members, and exempt from annual dues.

Dr. Richard Douglas offered the following resolution, which was adopted by a rising and unanimous vote:

"WHEREAS, In view of the false and malicious charges indiscriminately made by the opponents of higher medical education against the State Medical Board of Examiners as a body, and more especially against our honored members, Drs. T. J. Happell of Trenton, Robert Pillow of Columbia, and Heber Jones of Memphis; therefore be it

"*Resolved*, That the Medical Society of the State of Tennessee, in regular session assembled, do hereby place upon record their endorsement of these gentlemen as being in every way worthy, honest and honorable members of the regular medical profession, and who are qualified in every way for the highest honors it ever has or may accord them."

The discussion of Dr. Fort's paper was then resumed and participated in by Drs. Sheddan, Roberts, Wilson, W. D. Haggard, Jr., Miller, and W. F. Arnold, U.S. N., and closed by the author.

The paper of Dr. W. D. Sumpter of Nashville, "A Report of Cases of Appendicitis with Hematoma of the Ovary; and Supra-Pubic Lithotomy in a Child," was read; followed by Dr. E. L. Gleaves' paper on "The

Non-Operative Treatment of Appendicitis." They were discussed by Drs. W. K. Sheddan. Jr., J. L. Crook, Winston and Witherspoon, when the Society, at 12:35, adjourned until 2 p. m .

At the afternoon session Dr. W. D. Haggard, Jr., presented specimens of eight cases of perforative appendicitis, all of whom would have died without operation, and all saved but one. He contrasted these demonstrated operations with the eight cases of questionable appendicitis treated medicinally, reported by Dr. Gleaves.

The next paper was on "Corneal Ulcers and Their Treatment," by Dr. B. F. Travis of Chattanooga, and discussed by Drs. Savage, Price and M. Campbell.

The very excellent report of "Ventral Hernia of a Pregnant Uterus," by Dr. A. L. Macon, was discussed by Drs. Roberts, Douglas, Holtzclaw, Powell and Cowan.

"The Abuse of Quinine in Malarial Hematuria," by Dr. J. F. Griffin, was discussed by Drs. Smith, Powell and Campbell,

"The Fever in the Mountains of Upper East Tennessee," by Dr. H. C. Chance, was one of the best papers of the meeting, and was briefly discussed by Dr. Howlett of Bigbyville.

"Tubal Pregnancy, with Report of Case," was read by Dr. J. M. Black of Knoxville, and was the last paper of the meeting, when the Society adjourned to meet in Knoxville on the second Tuesday in April. 1900.

The address of the President, Dr. T. H. Marable, in which the question, "Are the Uses of Tobacco Detrimental to Mankind?" was discussed, was made the special order for Wednesday evening, and was most ably presented.

The banquet at the Tulane Hotel on the same evening was a notable feature of the occasion. The *menu* and service were such as can be furnished only by mine host Hancock, and could not be excelled. The polemic features of the banquet were rich, racy, original, spicy, and immensely enjoyable. Dr. C. R. Atchison presided as toast-master in most admirable style, and the following subjects were considered in a most happy and attractive manner: "Nothing"—Dr. Stephen Thach of Decherd; "The Young Doctor"—Dr. Jere L. Crook of Jackson; "The Patient From His Standpoint"—Rev. Dr. Rust of Nashville; "The Physician and the State"—Gov. Benton McMillin; "The Patient From the Doctor's Standpoint"—Dr. T. J. Happel of Trenton; and "Specialties"—Dr. J. A. Witherspoon of Nashville.

The entertainment lasted from 10 p. m. to 1:30 a. m., and proved most delightful to the 200 or more in attendance. The floral decorations of the table were beautiful, the music enlivening—the wine! *nil.* Yes, following the good example set at Jackson last year, for the second time in a quarter of a century wine was not a feature of a Tennessee doctors' banquet." "*A custom more honored in the breach than the observance.*',

The following are the Standing Committees announced by the President:

Arrangements—S. R. Miller, J. M. Black, M. Campbell, C. Deaderick and J. M Boyd, of Knoxville.

Publication—W. D. Haggard, Jr., W. C. Bilbro, Deering J. Roberts, A. B. Cooke, and S. S. Crockett' of Nashville.

Credentials—J. A. Witherspoon, Nashville; W. K. Sheddan, Columbia; S. M. Boyd, Knoxville; J. B. S. Woolford, Chattanooga; J. L. Crook, Jackson.

Legislation—T. J. Happel, W. K. Vance, H. C. Chance, R. Douglas, J. B. Neil.

Necrology—J. S. Nowlin, Shelbyville; G. C. Savage, Nashville; J. B. Cowan, Tullahoma; B. F. Travis, Chattanooga; I. A. McSwain· Paris.

FORTY-EIGHTH ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NASHVILLE.

The commencement exercises of the Medical Department of the University of Nashville were held at the Vendome Theatre Friday evening, March 31, ult. The exercises were unusually brief, but exceedingly entertaining, and were enjoyed by a large number of the friends and relatives of the young physicians who filled the theatre to the limit of its capacity.

The stage was tastefully decorated for the occasion and was occupied by the entire faculty of the medical college. Chancellor Payne presided over the exercises. The Vendome orchestra enlivened the evening with appropriate musical selections, and the boxes were filled with many of the most prominent people of Nashville, among whom was Hon. Benton McMillin, Governor of the State.

Dr. J. D. Barbee offered the opening prayer. He prayed for the blessing of the Almighty upon the faculty and students of the University, asking that the future of every member of the graduating class might work to the glory of the institution they represented and the name of the Creator and preserver of all men and all nature.

Professor. J. Dillard Jacobs, A.M., M.D., delivered the address on behalf of the faculty. The subject of the address was "The Origin and Early Hitsory of Medicine." He said that the origin of the science of medicine, though shrouded in mystery, began with the first suffering of the human body. The earliest authentic records of the practice of medicine were found in scripture. Seventeen hundred years before Christ, the Egyptians embodied their ideas of the art of healing in the embalming process. The temples of the Egyptians at Memphis became storehouses for medical lore, and though the ideas of these early physicians were crude, they evinced an ambition for further enlightenment. The Bible also gave us to believe that the Hebrews began the practice of alle-

viating suffering in prehistoric times. The book of Leviticus, for instance, dealt largely with the Hebrew customs concerning the uncleanliness of certain animals, and the Mosaic law referred to this subject in many ways.

Five hundred years later Solomon was the exponent of medical and surgical jurisprudence. Many allusions of this great philosopher gave an idea of the exalted position occupied by men of the healing profession.

The Oriental Indians, Dr. Jacobs said, collected the medical knowledge of their country into an immense volume. They held very ridiculous views on the origin of human disease, and the treatment of these ailments was equally as unreasonable. The Chinese held unique and preposterous theories concerning the physical world. The Greeks also imagined that all things were under the supervision of some patron god, and their medical science was proportionate in imperfections to this belief. The conditions were greatly ameliorated by the priesthood, and their temples became great resorts for sufferers. The temple of Esculapius became especially noted. He was a contemporary of Socrates, and by skill and learning acquired considerable renown. He it was who first claimed that the medical principles involved a science, and he relieved it of many empirical shortcomings.

The progress of the profession from this time was briefly noted, and the speaker then paid his respects to the graduating class. He advised the members of the class to follow the advice of the great Hippocrates. He hoped that their lives would embody all that was modest, noble and true. Their responsibilities would be great, he said, but their reward still greater. He said that he could not lift the veil from the future, but he knew that by following the path of the great and glorious men who have made the profession what it is, and by lending the helping hand to the poor as well as to the rich, the full harvest that comes with the consciousness of well doing would surely be reaped.

The valedictory address of the graduating class was delivered by Dr. Enoch W. Tipton of Tennessee. His oration was particularly brief and timely. Commencement, he said, marked an epoch in the life of a young man. It was a time for memory and fancy to mingle their voices. He reminded his classmates that they stood on the threshold of a new life, and he begged that they be faithful to the precepts and principles of their alma mater.

He thanked the people of Nashville for the kindnesses shown to his class, and paid especial tribute to the members of the faculty of the University of Nashville.

He made special mention of the venerable Professors T. L. Maddin and W. L. Nichol, with appropriate allusion to the latest additions to the faculty, Professors J. Dillard Jacobs and Edwin G. Wood.

To the members of his class Mr. Tipton said that this was an occasion for unity of thought. He painted the picture of a young man standing on the doorstep of his home, surrounded by parents, sisters, brothers,

speaking a last farewell before starting on a rugged, weary journey, and before leaving his home pausing for a last good-bye. The alma mater and the college was that young man's home. His fellows were his brothers and sisters, and it was the journey of life he was entering upon. He closed by expressing the hope that their farewell would be a benediction of hope, and that they would all be crowned with the highest success.

The degree of Doctor of Medicine was then conferred on the following graduates by Wm. H. Payne, Ph.D., LL.D., the Chancellor of the University:

Abell, Wm. J., Tenn.
Baker, Mary Rebecca, S. C.
Barrett, Alfred Eugene, Tex.
Bayne, Ledru White, Miss.
Black, Samuel Milton, Ill.
Boone, George Dorsey, Tenn.
Brew, James, Jr., Tenn.
Britton, James Madison, Tex.
Buchanan, Wm. Austin, Ind.
Burnam, James Fulton, Tenn.
Burton, William Grover, Ky.
Clark, Malcolm Hugh, Miss.
Cook, Oliver Cromwell, Tenn.
Cooksey, William Pate, La.
Cowle, Fannie Wooten, Tenn.
Dickson, Alvah Clarke, Tenn.
Donoho, Chas. Hayden, Tenn.
Dorgan, John Henry, Tenn.
Duchein, Charles Francis, La.
Eaton, Robert Lee, Tenn.
Exton, Thomas Jefferson, Ill.
Farris, John Kennerly, Tenn.
Forbes, Eliphaz Cowan, Tenn.
Ford, Willis Cas. Ragan, La.
Freeman, William, Tex.
Gaharian, Philip Steele, La.
Hamilton, Geo. Dun'way, Tenn.
Hamilton, Wm. Walsh, Tenn.
Hardison. John Alvis, Tenn.
Hennen, Leroy Stanton, Pa.
Holbrook, Eason, Ohio.
Jackson, Virgil Palmer, Tenn.
Jenkins, John Short, La.
Johnson, Cullen Dempsey, Tex.
Jones, Llewelyn L., Ky.
Jordan, William, Tenn.
Kelley, William, Mo.
Knighton, Joseph Edward, La.
Landrum, Sam Houston, Tenn.
Lee, Venie J., W. Va.
Lockhart, James Robert, Miss.
Longest, Ruffin, Miss.
Lowry, John Shirley, Tenn.
Martin, Charles Thomas, Tenn.
Martin, Henry Lawrence, Cal.
Massengill, Samuel Evans, Tenn.
McClain, William Asbury, Tenn.
McClure, Charles Alva, Ind.
McClure, William Boone, Ky.
McMillan, Moses McCarley, Miss.
Moore, Thomas Eugene, Tex.
Moore, W. Baine, Ky.
Neal, William Horatio, Tenn.
O'Leary, Francis Thomas, Ind.
Robertson, Eddie Lafayette, Miss.
Robinson, Geo. Austin Davis, Tex.
Rudolph, Mary Conroy, Tenn.
Seneker, John Beidleman, Tenn.
Shelton, James Madison, Tenn.
Smith, Charles Delmer, Ind.
Spradling, Louis Wetzel, Tenn.
Throne, Binford, Tenn.
Tipton, Enoch William, Tenn.
Todd, John Dudley, Tenn.
Townsend, Albert Levi, Ala.
Wheat, Erasmus Baxter, Texas.
Winton, Mack Ramsey, Tenn.
York, Samuel Radford, Tenn.

Rev. J. D. Barbee then awarded the special prizes to the following successful contestants:

Dr. Binford Throne, B.A., of Nashville, carried off the highest hon-

ors of his class. Besides winning the University of Nashville medal, Dr. Throne is also appointed interne at the City Hospital. Henry L. Martin, the second honor man, was awarded the medal donated by the Alumni Association, and Miss Mary Rebecca Baker received the third honor, the W. K. Bowling medal.

The Wood medal, offered for the best thesis, was also won by Dr. Mary Baker.

The following graduates attained a mark of 85 per cent. or over during the course, and were placed on the roll of honor: J. H. Dorgan, Sam. H. Landrum, G. A. D. Robinson, L. W. Bayne, Wm. Jordan, J. B. Senecker, M. M. McMillan, J. E. Knighton, J. M. Shel on and M. H. Clark.

The alumni winning the annual prizes for essays on clinical subjects were Dr. Hughes, Dr. Ward and Dr. Lowery.

A. C. Bailey, E. O. Jenkins, J. W. Maddox and E. F. Peden were unable to attend the examinations on account of sickness, but will be granted their examination later.

Prof. W. G. Ewing, Ph.G., M.D., Dean of the Medical Faculty, announced that the next regular session would begin Monday, October 2.

After quite a number of floral offerings to various members of the class, the exercises were closed with the benediction by Dr. Barbee.

ANNUAL COMMENCEMENT OF THE CHATTANOOGA MEDICAL COLLEGE.

The tenth commencement exercises took place at the Auditorium in Chattanooga, Tenn., on March 21, 1899. The spacious structure, with a seating capacity of 5,000 persons, was well filled with a representative audience of citizens, and the affair was an entertainment of high merit. There was instrumental music by Cadek's orchestra, and charming vocal music by local musicians of note.

Dean Cobleigh, after prayer by Rev. A. J. Fristoe of the Central Baptist Church, presided, and opened the exercises with appropriate introductory remarks concerning the college history and the present prosperous condition. Hon. C. D. Mitchell, President of the Erlanger Hospital Board, followed with the main address of the evening. Dr. Jo J. Harrison then delivered the class valedictory, and Prof. Holtzclaw addressed the class on behalf of the faculty. Thirty-one graduates were called by name by the Secretary, Prof. Rathmell, and advanced to the front of the stage attired in Oxford caps and gowns, presenting a very striking and pleasant appearance. President Race of Grant University—of which the college is the medical department—then bestowed the degrees, with a brief talk to the recipients. Honors were bestowed as follows:

Faculty Gold Medical to the valedictorian, Dr. Jo J. Harrison; a

case of surgical instruments to Dr. E. M. Russell, this being the second prize; a medical book—third prize—to Dr. O. G. Hughes, and honorable mention was made of Drs. J. B. Hughes, R. O. Kibler, H. P. Larimore and C. S. Wilkerson, the four students grading next to the prize men in general proficiency.

The Dean stated that the session just ended had been the most prosperous in the college history; that the evening's exercises marked the close of the first decade of such history; that nearly 200 students had been enrolled in the college class during the past term; and that with the completion of the new City Hospital, which had just been accomplised, the general outlook of the institution was particularly promising.

ANNUAL COMMENCEMENT OF THE MEDICAL DEPARTMENT OF VANDERBILT UNIVERSITY.

The commencement exercises of the Medical Department of Vanderbilt University were held on Tuesday evening, April 4th, in the auditorium of the Medical Building on South Summer street, which was filled to its utmost capacity, a large number of visitors being unable to secure even standing room in the packed aisles and entrances. Appropriate musical selections were interspersed throughout the exercises. The entire building was ablaze with light and presented a pretty scene. Not only the auditorium, but the corridors and stairways were adorned with palms and other attractive exotics in honor of the occasion. On the platform were seated the speakers of the evening and the members of the faculty.

The exercises were opened with prayer by Dr. A. P. McFerrin.

The first speaker of the evening was Dr. G. C. Savage, who delivered the charge to the graduates.

Dr. Savage began his address by saying that the question of what a man really is was a very old one. Plato had defined him as a creature with two feet and no feathers, but had been brought to ridicule by a contemporary who plucked the feathers from a chicken and presented it as filling the conditions of the definition.

Modern theorists were divided into two classes—dualists and monists. The monists were themselves divided into the materialists, who considered the volitions as all dependent simply upon brain structure, and idealists, who thought of the mind only as having real existence, and who thought of the body as nothing.

The dualists accepted the existence of both mind and matter in making up the man. Just what the bond of union is no man has ever discovered. In speaking of the mind and its attributes, we must distinguish between knowledge and wisdom.

Ability to follow certain lines depends upon the conformation of the brain. He then took up in order Perception, Memory, Imagination and

Thought. In perception the senses were brought into use. These "gateways to the mind" were named as follows: Heat sense, muscle sense, hearing, sight, taste and smell.

The sources of knowledge were then taken up. In the present day reading was the most important. Some good advice was given as to the kind of books to be selected and the method of reading to be employed. In ancient times the sense of hearing was the most important, but even to-day much of our knowledge comes from that source. Lectures and even simple conversation were of great advantage.

The speaker then discussed the condition of the blind as compared with that of the deaf, claiming that hearing brings more of happiness than seeing. He illustrated this part of his address by referring to Laura Bridgman and Helen Keller. He then took up memory and imagination. Perception had to deal only with the present. Memory, "the great bin into which the senses pour facts," had to do with the past, and imagination with the future. Imagination, though, dealt also with the past and the present. He divided it into artistic, reflection and practical, and explained the meaning and function of each class.

The Chancellor, J. H. Kirkland, A.M., Ph.D., LL.D., then proceeded to confer the degree of Doctor of Medicine in a few well-chosen words on the following gentlemen who had successfully passed the required examinations:

Adams, Edward Gaillard, Ga.
Ballenger, William E., Ark.
Aaskin, Adville C., S. C.
Barnett, Thomas M., Ala.
Barnsback, Roy Smith, Ill.
Berry, William Thomas, Ala.
Blackburn, John Henry, Ky.
Boyd, David Asbury, N. C.
Bryan, Wooster Allen, Tenn.
Burns, Charlie Sutton, Ark.
Burns, Samuel Lee, Ark.
Coldwell, Jim A., Tenn.
Childers, Robert A., Tex.
Cole, Richard King, Tex.
Coles, Van Harlinger, Tenn.
Corbin, David Riley, Mo.
Corns, Christian Zimmer, Ala.
Crigler, Lewis Webb, Miss.
Curlin. Charles Wilson, Ky.
Culloden, W. G., Ind.
Dorian, John Steele, N. Y.
Duckett, John Davis, Ala.
Edwards, Henry A., S. C.
Ellis, Leonard Richard, Ark.
Erwin, John H., Tex.
Goodson, Joseph Arthur, Ky.
Lester, Edward S., Va.
Marshall, Owen Riley, Tex.
Martin, Thomas Munroe, Ala.
Mason, William Herbert, Ky.
Moore, Jamef A., Tex.
Miller, Roscoe Clement, Tenn.
McCullar, James Alexander, Ala.
McCaffrey, Patrick Joseph, Pa.
McKinney, William Thomas, Ky.
McReynolds, Shepard S., Ky.
Newman, Nathaniel Rives, Tenn.
Peck, Albert Benton, Va.
Pendegrass, William Clayton, Cal.
Pittman, James Hardy. Fla.
Quattlebaum, Theo. Adolphus, S. C.
Rich, William F., Col.
Rogers, Will Peyton, Tex.
Robertson, George W., Miss.
Schwartz, Henry, N. J.
Sively, George A., Va.
Smith, James Augustus, Tex.
Stewart, Robert Lee, Tex.
Stone. John Henry, Miss.
Stone, Russell Edward, N. Y.
Simmons, Lawson Lee, Tenn.
Trawick, John David, Tenn.

Gwathman, James T., Tenn.
Hawkins, Herman. Tenn.
Hightower, Lewis H., Miss.
Hopkins, Percy, Isaiah. Ala.
Houston, Dick Frank, Tex.
Hust, Reuben L., Ark.
Isley, William Patterson, N.C.
Johnston, James G., S. C.
Johnson, Isaac Franklin, Tenn.
Jones, John Morgan, N. J.
Largent, William Todd, Tex.
Ledbetter, Edward E., Tex.
Trawick, George Connor, Tenn.
Vaden, William Edgar, Tenn.
Walton, Frank, Ala.
Ware. William Waldron, Tenn.
Walker, George LeLoch, Ala.
Watkins, Martin Lucius, Ala.
Welburn, William Crothers, Tenn.
White, Henry Bascom, La.
Whorton, William Walter, Ala,
Wright, Jesse Edgar, Fla.
Wright, John Robert, S. C.
Young, William Edward, Conn.

Prof. Wm. L. Dudley. B.S., M.D., Dean, announced the following successful contestants for the special honors:

Founder's Medal, First Honor, which carries with it the interneship to the City Hospital for the ensuing year—L. H. Hightower, M.D., of Mississippi.

First Honor, Second Year in Middle Class—R. L. Carswell.

First Honor, Third Year in Junior Class—J. W. Hanner.

Gold Medal, awarded by Prof. W. F. Glenn, to W. C. Welburn, M. D., of Tennessee.

Gold Medal, awarded by Prof. G. P. Edwards, to R. K. Cole. M.D., of Texas.

Mr. John Bell Keeble of Nashville was then introduced, and delivered the regular address of the evening. Mr. Keeble put his audience in a fine humor by telling a number of good jokes and making several happy hits. He said that after reading the laws passed by the present Legislature making it so difficult to secure dissecting material, he had been almost afraid to come to the college. He did not long for the role of a cold and clammy cadaver. Referring to his address, he told the story of the minister who prayed continuously and with great unction for "power." but was interrupted by a good brother who told him that what was needed was not power but ideas. He said he felt unable to continue his address until he had paid the usual respect to Æsculapius and Hippocrates, two dignitaries who had been sadly neglected by the other speakers.

The profession of medicine more than any other, he thought, offered a rich harvest. The choice of a profession, he said, was the wind turning the weather vane of one's destiny. A desire for success is a laudable thing. This profession gratified the ambition more, probably, than any other could do.

The three forms of ambition were to seem something, to actually be something, and then to satisfy the ambition of one's conscience and inner self. This last meant the ambition to be of use to the world, to gain the love of one's fellows.

Following out this line of thought he presented very eloquently the value of the profession and its great opportunities for usefulness.

[illegible] and the audience were invited [illegible] and excellent laboratories of [illegible] and bacteriological depart- [illegible] the well-pleased visitors.

[illegible]TIAN SCIENCE.

[illegible] to the recent fad that goes under the [illegible] have no opposition whatever to Christi- [illegible] and with the greatest harmony, the fol- [illegible] *Truth* may at this time be of interest:

[illegible] stories about Christian Science that have [illegible] communicated to me. Its authenticity is [illegible] desire to be numbered among the vouchers. [illegible] accident which resulted in his being left with [illegible] other. Medical science failed to put him to [illegible] determined to try what Christian Science could [illegible] to a 'healer,' who was said to have had miracu- [illegible] similar cases. Unfortunately the lady had engage- [illegible] and was only able to see him personally once. [illegible] the treatment at this interview, and departed [illegible] promising to continue the course *in absentia*. The [illegible] *Truth* is aware that in Christian Science absent treat- [illegible] the same as present treatment. So it proved in this in- [illegible] began to grow. It continued to grow. It got as long as [illegible] showed no disposition to stop growing at that point. The [illegible] alarmed. He made inquiries after the absent healer, but [illegible] her. His leg kept on growing, and in despair he advertised [illegible] in the hope of stopping the absent treatment, but with- [illegible] His leg is now three inches longer than the other, and is [illegible]."

[illegible] (answering the bell at 1 A.M.)—Well, my boy, what is it?
[illegible] Maw says come and see my paw; he's got the plumbago.
[illegible]—Yes, um—um. Pain in the small of the back, I suppose?
[illegible] No, sir; my paw ain't got no small of the back. My paw weighs [illegible].

"ONE EVENING I was called to attend a gentleman, a member of my own family, who had just returned from a trip, during which he had contracted a case of well-developed catarrhal fever as the result of a severe cold. His pulse was 120, temperature 120 2-10°, skin hot and dry. pain all over the body, and a splitting headache; all the mucous tissues were inflamed, involving the nasal tract, throat and bronchial tubes; the eyes were watery. the nose was running, throat sore—in fact his whole system was thoroughly congested.

"It was very important that he should be able to travel within a day or two. I ordered him to tak a hot footbath, then drink a hot lemonade and go to bed. I left him six Tongaline and Quinine Tablets, with instructions to take one every half hour, washing it down with plenty of hot water.

I saw him about 7 o'clock the next morning, and received the following report: About one hour after going to bed he oommenced perspiring and began to experience a feeling of drowiness, so that before he had taken all of the Tongaline and Quinine Tablets he fell into a refreshing sleep, from which he did not awake until 5 o'clock. I found his pulse was normal, temperature 99°, skin moist, the pain entirely gone, and all the unfavorable symptoms decidedly improved—in fact, the trouble was under control. I prescribed a mild cathartic, and by the following day he was able to go on his way rejoicing.

"Since then I have frequently given Tongaline and Quinine Tablets in similar conditions, with marked success in each instance."—*Frank A. Barber, M.D. Chicago, Ill.*

A MISFORTUNE.—We regret to learn that a cyclone that passed over Hickory Flat, Miss, March 18th, occasioned quite a serious loss to our esteemed friend, Dr. J. T. Abston. His loss thereby amounted to over $1,000. Well, "it's an ill wind that blows nobody any good," and we hope that the next breeze will bring him a sufficienl amount of good luck to overbalance his loss.

FOR ABDOMINAL SUPPORTERS, uterine supporters, trusses, elastic stockings, etc., always see the advertisement of G. W. Flavell & Bro., and write to them concerning all such matters. The long and creditable history of this firm gives a basis for absolute confidence.

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Reviews and Book Notices.

CHEMISTRY: General, Medical and Pharmaceutical, including the Chemistry of the U. S. Pharmacopœia. By JOHN ATTFIELD, F.R.S. New (16th) Edition. In one Royal 12mo volume of 784 pages with 88 illustrations. Cloth, $2.50 net. LEA BROTHERS & Co., Philadelphia and New York.

For thirty-one years this book has been the trustworthy guide of students in medicine and pharmacy throughout English-speaking countries, and the demand which rendered necessary the publication of rapidly-succeeding editions made it possible to keep the work always up to date. The present edition is no exception, and a comparison with the previous issue will show on every page the changes, additions and elisions made to present to-day's status of its ever-developing science. Effort has been been made to keep the book within the limits of a learner's manual, and the eminent author has not abated his endeavors to teach the science of chemistry as it relates especially to the fields of medicine and pharmacy.

Anticipating a still wider demand for the book, the publishers have placed the new edition on the market at a reduced price, notwithstanding its size remains the same.

The work has been thoroughly revised to accord with the last edition of the U. S. Pharmacopœia. Little introduction and comment is needed for a work that has been so long and favorably known. At the first International Pharmaceutical Exhibition, held in Vienna in [illegible] the author was awarded a gold medal, and at the second, held in Prague in 1896, he received the highest award, a diploma of honor.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

DEVOTED TO MEDICINE AND SURGERY.

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DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

SUBCUTANEOUS RUPTURE OF LARGE ARTERIES FROM CONTUSED WOUNDS.*

BY J. A. CROOK, M.D., JACKSON, TENN.

In the treatment of this subject I shall not discuss injuries to the arteries, as they usually occur complicated with grave lacerations of the skin and soft parts, but will limit the scope of this paper to those cases where the force of the injury is so directed against the artery as to rupture its walls, while the skin and soft parts remain practically intact.

As an introduction to the subject I present the following case: James W., colored, æt. 23, brakeman, while coupling cars at Grand Junction, Tenn., about 1 o'clock a. m., May 31, 1898, had his right arm caught between the bumpers, the soft

* Read at meeting of Tennessee State Medical Society, April 11, 1899.

parts contused below and above the elbow, the neck of the radius fractured, the vessels ruptured, the skin remaining intact, with the exception of slight abrasions of the cuticle in a few places. He was attended at once by a physician, who stated that he would be disabled for some three or four weeks. He arrived in Jackson about 4 o'clock a. m., when Dr. J. L Crook called to see him, and dressed the swollen arm in hot antiseptic solutions.

We attended him again about 10 o'clock a.m., and found him suffering greatly, the arm and hand being cold and enormously swollen. There was complete absence of the radial pulse, nor could any pulsation be detected in the ulnar artery. We diagnosed the case as rupture of the brachial artery with great injury to the subcutaneous tissues, and probable fracture of the neck of the radius. On account of the enormous distension of the arm, caused by effusion of blood in the cellular tissue, we could not make a positive diagnosis of the fracture.

To relieve the great swelling and tension, I made several punctures into the tissues with a keen narrow bistoury at various points along the underside of elbow and arm and on back of hand, which allowed the effused blood to flow out freely until the tension and pain were relieved. The arm was then bathed well in hot bichloride water, wrapped in layers of cotton wrung out of hot bichloride solution, dry lint applied over this, and bandaged with sufficient support to restrain hemorrhage. The patient expressed himself as being greatly relieved, and said that his arm was very comfortable.

I then stated to him that it was highly probable he would lose his arm; that the arteries were ruptured and the soft parts and capillaries were so badly injured that it was hardly to be expected that sufficient circulation would be carried on to sustain its life. Patient's reply was "that he wonld never consent to having his arm cut off, as he could work his fingers and had some feeling in them."

On visiting him next day we found some improvement in arm. There was some feeble capillary circulation down to the metacarpo-phalangeal joints, but no circulation in large vessels. Continued same line of treatment.

The condition of the arm remained about the same—only

showing a little more sign of returning life—for several days; some blisters, however, appearing near wrist and along fore-arm, but the thumb and all the fingers began to shrivel and assume the condition of dry gangrene back to near the metacarpo-phalangeal articulation. He was clear of fever, comfortable, with a good appetite, and quite cheerful. We then had strong hopes of saving all but the fingers. It seemed that the hot bichloride had exerted a salutary effect. The condition of arm remaining almost stationary for two weeks, the few blisters mentioned being the only sign of developing mortification, except at the finger tips.

But on visiting him the 15th of June, sixteen days after the injury, we saw that our efforts to save the limb had failed, that the forces of life were withdrawn to a point including a portion of the elbow joint, and the hand and arm were in a condition of gangrene. On the morning of June 20, twenty-one days after the injury, the line of demarcation being plain, the patient was removed to the Presbyterian Hospital and I amputated the arm above the elbow at junction of middle and lower thirds, and patient made a rapid and uneventful recovery.

In reviewing the literature at my disposal I was astonished to find so little had been written on the subject of rupture of large arteries. Neither Gross nor Wyeth mention such injuries, and the *American Text-Book* devotes only a few lines to its consideration. In this age, owing to the vast multiplication of railroads and other means of rapid transit, such injuries are likely to be of frequent occurrence. Hence they must prove an interesting type of traumatism, fraught as they are with such grave consequences to the limbs and lives of the victims, and with such great responsibilities to the surgeon.

In the *Railway Surgeon* of May 31, 1898. and subsequent issues to July 26, 1898, there appeared a translation of a continued article by Felix Lejars, in which he reported a case almost identical with this case, caused by two wheels of a loaded cart passing over the right arm, producing attrition of the right brachial artery. In this case a dry gangrene developed in the thumb and fingers, almost exactly as first appeared in the case I have reported. But as the soft parts were not so badly damaged, Dr. Lejars was enabled to save the arm, with loss of thumb

... appeared, though feeble, four ... the fingers. Above the elbow a ... strewn with nodules that seemed to be ... cut of this case, Vol. V, No. 1, ... May 31, 1898.) Dr. Lejars collected ... of which involved the brachial ar- ... those of Cusco, More, Hulke and Lawson. ... these cases involved the popliteal and one- ... arteries, showing such accidents to occur most ... lower limbs. Such injuries are caused by se- ... such as being caught between the bumpers, as ... from severe pressure, as the passage of a wagon ... Lejar's case. Under such circumstances it can ... that an artery filled with blood may have its ... ruptured without any laceration of the skin or soft ... these lesions may be of different degrees of gravity—as ... rupture, rupture of the middle and inner tunics, or of the ... alone. It is important to remember that while in ... these lesions the subjacent circulation is obliterated ... first, others manifest themselves by a slow coagulation ... may require several days to complete.

... clinical picture presented in cases of immediate oblite- ... will materially differ from that seen in those where oblit- ... is retarded. In the first instance the symptoms are well- ... If the traumatism has been severe, there will fre- ... be considerable shock, general and local. Absence of ... pulse in the region below the site of rupture is an important ... and was plainly manifested in my case. It is well here to ... the importance of search for the pulse in all severe ... of the limbs to ascertain if the circulation is impeded. ... of the limb is always present, and its temperature is ... lower than that of the sound one. There will also ... diminution of sensibility, though the zone of cutaneous an- ... does not always correspond with the cold areas. These ... associated with the swelling, distension and pain in- ... to the pressure from effused blood, can hardly be mis- ... by a careful observer.

... diagnosis is not so clear when the signs of obliteration are ... in appearing. In a case reported by Hulke he states that

"there was no sign of arterial lesion until the third day, when the fore-arm and arm were swollen and strewn with red and green spots nearly to the shoulder." Verneuille corroborates this testimony in reporting a case, saying: "A man received a contusion of the groin; at first the circulation in the leg kept up, and the phenomena of obliteration did not appear until twenty-four hours after."

But whether the obliteration be rapid or slow, the injury is grave, and generally followed by gangrene of greater or less severity. However, it occasionally happens that healing occurs after arterial attrition, leaving no other effect than a slight weakness of the limb.

It is hardly necessary to say that we should exercise great caution in giving a prognosis in these cases. If the middle and inner tunics only are involved, it may be followed by a large aneurism, or secondary hemorrhage, from sloughing of the outer coat.

The treatment should be conservative, every effort being made to restore life to the limb and prevent gangrene, which is so imminent. To this end the entire limb should be thoroughly cleansed and rendered aseptic by antiseptic solutions, attention being given to every abrasion in the cuticle lest it be the point of entrance for infection. This treatment should then be followed by enveloping the limb in hot antiseptic packs, wet or dry, over which thick layers of dry cotton are applied, supported gently by a bandage. If indicated, as in my case, I should not hesitate to make punctures into the cellular tissues to relieve the tension and allow the suffused blood to escape. It may sometimes be beneficial, if the case is seen early, to open up the limb, evacuate the effused blood, and ligate the ruptured vessel. After the artery is secured, if there is much shock, the saline infusion would certainly be indicated. Later on in the case the treatment will depend on the condition of the limb and the character of the gangrene. If it be dry and localized, we should wait for nature to complete the line of separation. If moist and rapid, amputation high enough to include only sound tissue in the flaps is the only resource.

[illegible]ERNIA IN WHICH THE [illegible]S FORMED THE CON- [illegible] HERNIAL SAC.*

[illegible], M.D., FREDONIA, TENN.

[illegible] years, who about five years ago mis- [illegible]urth month of pregnancy. At that [illegible] of four children, all of whom were [illegible] was called in to attend her during this [illegible] abortion. Upon reaching her I found [illegible] expelled, but the placenta remained and

[illegible] placenta, however, without the aid of instru- [illegible] manipulation. The patient did well until the [illegible] delivery, when she developed phlegmasia [illegible] an uneventful course and terminated after [illegible] about the time, however, that the phlegmasia [illegible] also presented symptoms of a ventral abscess [illegible] the umbilicus and the pubes, in the lines alba. [illegible] ruptured spontaneously at the very time when I was [illegible] the patient to open it. From that time she made [illegible] recovery, and was soon able to attend to her household [illegible] In a very short time I was again consulted for a tumor [illegible] made its appearance at the former site of the abscess. [illegible] examination I very readily discovered it to be a hernial [illegible] containing a small loop of the intestine. This opening con- [illegible] enlarge, the patient soon had quite a large hernia.

[illegible] fourteen months subsequent to the abortion the pa- [illegible] gave birth to a child at full term. This pregnancy caused [illegible] inconvenience other than an enlargement of the opening [illegible] the muscular walls of the abdomen, thereby increasing the [illegible] of the hernia. In less than twelve months she again be- [illegible] pregnant, and this time the opening in the muscular wall

* Read at meeting of Tennessee State Medical Society, April 13, 1898.

of the abdomen had increased to such an extent that after the sixth month of pregnancy the uterus found exit through the opening,and as gestation advanced the uterus continued to descend until it came within one inch of the knees, and the fundus occupied the lower portion of the hernia, or, to use a vernacular phrase, it had "turned topside down." The intestines had given way to the more solid mass, and had receded within the abdomen. When labor began I was most admirably assisted by Drs. J. F. Mosley and R. B. Macon, who at that time were students of medicine.

After having raised the uterus up and as near in its natural position as possible, I found the head presenting. They continued making pressure over the abdomen, in that way imitating the pressure of the muscles of the abdomen which could no longer be of service. Labor was short, and in no other way differed from normal. The child was perfect in development and healthy.

A few days ago I again delivered the patient, with the assistance of my brother, Dr. R. B. Macon. The conditions were exactly the same as in the preceding labor, with the exception that in this last instance it was a breech case instead of a vertex presentation.

Will say by way of closing that I have suggested an operation with a view of restoring the integrity of the abdominal or ventral opening, but cannot get the consent of my patient,

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SOME OBSERVATIONS, MAINLY CLINICAL, UPON THE URIC ACID DIATHESIS.

BY ISAAC J. JONES, M.D., AUSTIN, TEXAS,

Late Surgeon to the Texas Confederate Soldiers' Home; Secretary to the State Health Officer of Texas.

There is a large class of departures from the normal state of health; in some instances amounting to actual disease, in others not being well enough defined to be so classified; that, after having long defied the ingenuity of the medical profession to find the real pathological factor, now, since that has been demon-

strated, seem to be equally as refractory to therapeusis. I refer to the conditions now known to result from the uric acid diathesis. Until the researches of Haig and others, the etiology of even the well-known but formidable rheumatic diathesis was a terra incognita, and since the guilt has been fixed upon uric acid we have broken and splintered every lance in our armentarium without avail, or at the best with only temporary or partial success. It has been found that the salicylates, once thought to be specific, do no more to cure the disease than chloroform does of cure the wound of the surgeon's knife; they are merely analgesic. It is now not only conceded that uric acid is the direct causative factor of rheumatism; but it is claimed with strong supporting evidence that asthma is another one of its manifestations; and, so far as my knowledge goes, it was a Texas physician—Dr. Scott—who first advanced this theory. He cites—and I believe it to be a clinical fact—that the two diseases do not coexist in the same patient, but that the one usually precedes or follows the other. The hypothesis of the causation of asthma has gained considerable currency, insomuch that the manufacturing chemists are recommending preparations for the cure of asthma by the elimination of uric acid. I have been much interested in this question by reason of the fact that I have had the medical care of a large number of asthmatics, rheumatics and sufferers from migraine during my four years' service in the Confederate Soldiers' Home in this city.

Believing that I had found some light upon the subject, I began the treatment of some of these patients by the administration of various alkaline preparations, said to combine with the uric acid in the blood, forming soluble urates that could then be readily eliminated from the system. It seems to be generally considered that lithia forms the best base for this chemical reaction, and also by its diuretic power assists in the elimination.

Now, uric acid does not exist in the body, as such, normally; its normal condition is that of a quadriurate of sodium, potassium, or ammonium. When these are split up and the uric acid set free, we have gravel and calculi. When these quadriurates are not excreted with the normal rapidity, on account of some defect in the excretory functions, or when they are produced in abnormal quantities (?) they gradually take up another atom of base, and are thus converted into biurates, which, being stable

and insoluble salts, are deposited in certain tissues, thus causing gout, rheumatism, etc.

After having, as before stated, had considerable experience in the treatment of these diseases with various salts designated to neutralize the poison and favor its elimination, my attention was called to a new chemical salt of lithia, bearing the commercial name of thialion. This I found to be a laxative alkaline salt, soluble in hot water, and not disagreeable to the taste. It was claimed for this that it not only possessed the well-known diuretic action of lithia, but was also an efficient and pleasant laxative. It was this combination of desirable qualities that attracted me. Besides these it possesses other properties worthy of note, being a circulatory stimulant and increasing the flow of bile in a marked manner.

I began the use of the drug upon myself first, having suffered for some years past with a continuous soreness and stiffness in each shoulder joint and running down the extensor muscles of the arm to such a degree that I could not dress, or even lift my hat, without pain in that region. I had tried to correct this by appropriate diet, but without success. I had also a considerable degree of constipation and frequent attacks of "biliousness." I began with one teaspoonful of thialion three times daily, taking it in hot water before each meal. In two days the characteristic soluble stools were produced. I continued the use of the drug for one month, taking only one teaspoonful daily. At the end of this time I was entirely relieved of my pain, as well as my constipation, and have remained well. My father having died of valvular heart disease, I had looked forward to the same trouble, as I am his prototype physically, and suffered with the same character of rheumatism. I now feel that I have a reliable weapon to combat the enemy.

The second patient was Dr. W. F. B., a prominent State official, who suffered with the same form of rheumatism as myself, and in addition had severe attacks of migraine almost weekly. He took thialion in the usual dose, a teaspoonful three times daily until its laxative effect was produced, and one teaspoonful thereafter for one month, and was entirely relieved of his rheumatism, and has had no attack of migraine since the first week of treatment. He states that he sometimes feels that he is threat-

ened with migraine, but that a dose of the remedy is sufficient to relieve him of the malaise.

Mrs. E. B. R., aged 30, married, has been suffering with renal calculi for a number of years. Was treated by her father, one of our ablest physicians, without benefit; afterward spent several months in a famous sanitarium at the North with the same result. She took thialion in the usual dose for one month, and since its administration was begun the uric acid deposits have disappeared from her urine, nor has she passed a stone. She has also gained twenty pounds in weight in three months. I fear that there has been so much structural damage to the kidneys that surgical interference will eventually be required.

D. C., male, aged 68 years, was for years a sufferer from rheumatism, being blind from iritis, probably of rheumatic origin. Some years ago the rheumatism disappeared, only to be replaced by bronchial asthma of severe type. I exhausted every resource of the pharmacopeia upon this patient, having him under my constant care in the hospital for four years. The only success that rewarded my efforts was that I found I could abort his paroxyms with a mixture containing a half grain of codeine sulph. and 15 minims aromatic spirit of ammonin to the dose. I gave him thialion in the usual dose for sixty days and discontinued it. He has not had a paroxysm of asthma since. There is no symptom of his disease remaining except a slight bronchial discharge, easily coughed away. He has gained fifteen pounds.

J. F. D., aged 72, male. Old case of bronchial asthma, with much emphysema and chronic bronchial catarrh. He was also under my care for four years. His respiration, at all times difficult, passed to a state of extreme dyspnea during his paroxysms pitiable to see. These paroxysms occurred twice a week as a rule, but he was never able to sleep more than an hour or two consecutively at any time. His condition was aggravated by the least exposure, and by sudden changes in the atmosphere or humidity. I gave the thialion in the usual dose, and continued it for sixty days. He has had none of the severe paroxysms since. Respiration, while somewhat difficult, is uniform and so much improved that he sleeps normally. In fact, after two months' observation I think I can safely say that his asthma is cured, and were it not for the structural conditions engendered by it he would be well.

Abstracts.

A CONTRIBUTION TO THE CREDE SILVER METHOD OF WOUND TREATMENT.*

BY DR. PAUL MEYER,
Staff Physician, Marine Service.

Practical experimentation with the Crede Silver method has been made for about a year past at the Naval Hospital at Wilhelmshaven. I have employed the Citrate of Silver Crede as a dusting powder; the Argentum Solubile Crede in 0.5:200.0 solutions (7½ grains to 6½ ounces) with 2.0 (30 grains) of albumin for internal use; the Lactate of Silver Crede in solutions of 1:2000 for irrigations; the Unguentum Crede; Citrate of Silver suppositorities, 2 per cent., and Silver Silk, Silver Catgut, and Silver Gauze.

In the absence of personal experience with the method, I at first followed Crede's directions with exactitude. The usual preparatory methods with hot water and soap, shaving, green soap tincture, alcohol and benzine, were employed. Wounds were irrigated first with water, and then with the Lactate of Silver solution. The powdered Citrate was employed as a dry or moist dressing; the Citrate of Silver suppositories were used for the orifices of wounds; and for spreading inflammatory conditions or general infections the Silver Salve was employed by inunction, or, more rarely, Soluble Silver was administered internally.

The following operative procedures healed per primam: One radical hydrocele operation; one hydrocele puncture; seven removals of great toe nails for ingrowing toe nail; five phymosis

* Abstracted from the *Deutsche Militararztliche Zeitschrift*, xxviii year, No. 1, Berlin, January, 1899.

[illegible] operation; one removal of a hazel-[illegible] from the rectum with the ther-[illegible] of a cherry sized sebaceous cyst [illegible] egg-sized cystic tumor from the cap-[illegible] of an egg-sized fibro-myoma of the [illegible] and one of a walnut-sized hard in-[illegible] from the neck; one removal of a po-[illegible] exostosis from the lower third of the [illegible] smaller exostosis from the left calcaneus; [illegible] of the right little finger at the metacarpo-[illegible] one amputation of the left ring finger at its [illegible] removal of a splinter of glass 5 cm. (2 inches) long, [illegible] years on the tibia, and one transplantation on an [illegible] surface the size of a hand on the right knee.

[illegible] following cases an abundant serous secretion length-[illegible] of healing: One removal of an egg-sized sarcoma-[illegible] tumor from the right side of the neck, with [illegible] non-purulent tissues during the first two weeks, the [illegible] having been greatly damaged during the operation, and [illegible] cutting their way out through the separated edges of [illegible] wound; one removal of a walnut-sized cystic goiter, with a [illegible] result after four weeks; one exarticulation of the left [illegible] finger at the metacarpo-phalangeal joint, with a similar re-[illegible] after fourteen days, and an irritation eczema appeared in the neighborhood of the wound; one external urethrotomy, with urinary infiltration and cutting out of the perineal sutures, but with little irritation of the surrounding tissues and healthy granulations promising a good final cicatrization; one skin transplantation on an ulceration of the left leg half the size of one's hand, with adhesions of the transplanted skin, but abundant serous secretion and exuberant granulation of the surrounding areas.

Pronounced suppuration occurred in the following cases: One paraphymosis operation with suppurative extrusion of a gangrenous portion of mucous membrane at the site of constriction; one removal of a walnut-sized cystic goiter, where the ligatured stump suppurated for twenty days.

Most of the foregoing cases went on to undisturbed primary healing, though the wounds were in many cases in situations

very liable to become contaminated. The absence of irritative effects was very noticeable, even in cases where the tissues were soaked with urine for weeks.

The following injuries healed per primam: One punctured wound of the back with a pocket knife through the clothes, and a similar one in a very dirty palm; one contused wound of a dirty index finger, one behind the ear from a blow with a beer bottle, another of two dirty fingers in a machine, and another of the head with splintering of the bone, one incised wound of the little finger made with a bread knife; one complicated fracture; one incised wound of the upper arm with division of three tendons.

Abundant serous secretion appeared in the following cases: One burn of the third degree of almost the whole hand, in which other treatment had to be employed on account of disintegration of the tissues; one contused wound of the index finger, with secretion for seventeen days; one punctured wound of the shoulder with much hemorrhage and nine days' serous secretion.

The following injuries suppurated: Punctured wound of the temple and injury to a vessel of the dura, with suppuration for several weeks after trepanning and extrusion of a necrotic portion of the external table; one incised wound of the lower arm in an attempt at suicide, with division and necrosis of two tendons; one contused wound of the index finger, with the same result; one complicated dislocation of the left distal thumb joint, with infection.

In most of these wounds the silver disinfection was satisfactory; the inflammatory symptoms retrogressed and became localized. In nine panaritiums suppuration ceased with the extrusion of the necrotic bone two to thirteen days after the incision. The granulations were good and functions were retained.

In five cases of suppurating lymphatic glands of the neck, the axilla and the groin, healing per primam took place twice; in the other three cases the separation of necrotic gland tissue caused suppurations lasting from four to fourteen days.

Twenty cases of cellulitis, mostly beginning in the hand, were incised and the lesion remained localized under the silver treatment. The same is true of nine cases of furuncle.

In one case of chronic leg ulcer the serous secretion interfered

[illegible] was cured in seven days under the treatment, after having been handled by other methods for four weeks without result.

In two cases of tubercular disease of the lumbar vertebræ and ribs the silver treatment did no good. Both did better under iodoform.

As regards general infection, only one pronounced case of septicemic nature was treated. The patient was an officer, forty years old, corpulent, with a fattily degenerated heart, and was admitted at 11 a. m. in a stuporous condition and with high fever. Infection had taken place from a small wound of the finger, and the whole fore-arm was swollen and doughy. The flexor muscles of the fore-arm were incised under Schleich's anæsthesia: no pus was found, but the muscle bundles were soft and discolored. At 11:30 of that morning an injection of 4 grams (1 drachm) of the Silver Salve was administered; crisis occurred with sweating between 5 and 6 p. m., the temperature fell from 39.2° C. (102.6° F.) to 28.7° C. (101.7° F.), and at 10 p. m. it was 38.0° C. (100.4° F.). The dyspnœa got better, the heart stronger, the sensorium cleared, the general condition became satisfactory, and the outlook very hopeful. At 11 o'clock the patient asked for water; after he had drank it he fell back dead from cardiac paralysis. In this case there was an energetic reaction to the silver, and I am convinced that with a more resistant heart the outcome would have been a happier one.

A second case of a wound in the foot with beginning general infection in a strong young man, reacted very plainly to a silver injection. It was shown by retrogression of the fever and a very noticeable improvement in his subjective condition.

In the various cell lines the temperature fell after the injections. If the diminution in the [illegible] further than the [illegible] and pulse, the subjective condition was [illegible] [illegible] could hardly be present. The [illegible] effect was the same as after the usual internal administration.

The indications for the use of the silver treatment in the above cases may be [illegible] as follows:

[illegible] silver treatment is a general [illegible] procedures

But it possesses two important advantages. *Rapid and reliable healing can be obtained without asepticism and with less rigorous antiseptic measures, and thus with simpler means and less trouble.* Hence it is especially suitable for the sick bays of ships, for use in the field, and for hospitals where the facilities for aseptic wound treatment are deficient, and suppurative affections and fresh wounds have to be handled in the same rooms or very hurriedly, or with inexperienced assistants. As far as my material permits me to judge, I have found Crede's statements to be correct; I consider his method an efficacious and handy one.

The second advantage is *the marked tendency of the method to effect the localization of inflammatory processes*, as Crede claims. In most cases the inflammation of the tissues surrounding the lesion subsided in the shortest time. And even when it progressed along the lymphatics a general infection was prevented.

Poisoning by the metal, or any special pain from its use, was not noticed, eczemas did not occur. The course of healing was noticeably shortened; and primary union took about the same time as with aseptic treatment. Necrotic tissue, when present, was cast off with a non-irritating suppuration before actual union began. The cases of general infections and of burns were too few to permit of a definite judgment; but a favorable reaction of the system to the inunctions was readily recognizable. Granulations under the citrate were almost always remarkable for their vivid color and vigorous growth.

The abundant serous secretion from the tissues was apparently a disadvantage in the cases where a primary union was desired; but whether this was dependent upon the citrate itself or upon other circumstances I cannot decide.

The cost of the silver treatment I did not find to exceed that of other methods. The Citrate of Silver is dearer than iodoform; but it is used in very much smaller quantity, as a very thinly dusted-on covering. The Silver Gauze is too expensive for universal use, but I believe that common gauze with the citrate will do just as well. The price of the ointment is of no importance, on account of the small quantities that are employed.

The following is the method that I now employ for ambulant patients, in view of the very reliable anti-inflammatory and localizing properties of the Crede Silver preparations:

Injuries and inflammatory processes are treated with silver until all traces of inflammation have disappeared, and until healing by adhesion and granulation formation has begun in the depths of the wound. Cicatrization may be promoted by cauterizations and salves. Operative wounds in which primary union is not absolutely necessary are treated with silver if it does not appear that the abundant serous secretion interferes with the healing. For febrile symptoms I employ the salve by inunction; more rarely I administer the silver internally.

In conclusion I may state that the silver treatment, whilst not equal to the aseptic treatment of wounds, is reliable where the latter cannot be carried out, as in non-aseptic hospital operating rooms, dressing rooms, in ship bays, in private practice, and especially in the field. In the latter case the removal of the first dressing need not be a matter of such anxiety as it now is, even if it is soaked with secretion from the wound. For it is proven that the bacteria cannot develop in secretion impregnated with silver.

My experience leads me to place the fullest reliance upon the silver treatment of wounds, and I can recommend it in every respect in the most emphatic manner.

Selections.

THE TREATMENT OF CARBUNCLES.—There is no affection falling to the lot of human suffering that is attended with more pain and suffering than carbuncles. Besides the pain which they carry in their train, they are attended with much danger. As a cause of death, upon investigation, we will find that the mortality incident upon this affection is by no means contemptible. In this article I shall not deal with the symptoms or pathology of this affection, that being easily obtained by reference to the standard text-books on surgery.

One of the first considerations in the treatment of a patient with carbuncles is to see that he is well and thoroughly nourished. The importance of this is very manifest when when we

reflect how much debility is associated with the unfolding of a carbuncle. We should give regularly food of a nourishing character, and we must be satisfied that our patient gets enough to sustain his strength. Liquid diet and easily digested solid foods are to be given as regularly as we do our drugs. Milk, predigested foods, and everything which offers no resistance along the line of nourishment will be called into requisition by the wise physician. In this connection I must not omit to mention the value of stimulants in some cases. In patients who are extremely weak, either from the disease itself or from a poorly nourished state of the system existing before the supervention of the carbuncles, it is of the greatest importance to give some stimulant regularly. Whisky serves us well, but I generaly allow the patient to select his own favorite liquor. I give stimulants often enough to keep the volume of the pulse good. There is no rule better than then one Jurgensen lays down; this, he says, "is the rule of consistency." He explains this by saying that stimulants should be given to produce the effect we desire. We must not stand on quantity or dosage; effect on the pulse is what we must obtain; if large doses are requisite and frequent dosage is necessary, we must bring both to bear.

The old writers on surgery and practice advocated the abstraction of blood and the employment of drastic purgatives. It is not worth serious argument to convince the practitioner of the present day that such practice tends to intensify all the serious factors in the case.

I shall now speak of the treatment of carbuncles by drugs and by surgical means. Let me consider the treatment under two heads: First, the internal treatment; second the treatment by local applications and surgical procedures. By the internal remedies are meant not, of course, foods and stimulants as have already been mentioned, but pure medication to correct the blood dyscrasia which gave rise to the carbuncular conditions. Iodides and sulphide of calcium have been administered, but they are not now relied upon by the profession. Both of these agents have utterly failed to modify in any way the progress of a carbuncle, and they have been tried thoroughly. Iron has also been tried, and it, too, has failed, and is not now relied upon by the profession. For some months I have relied upon ecthol as

an internal medicine. I have notes on fifteen cases treated with this agent. I employ it in doses of a teaspoonful every two hours. Its internal administration is the only drug which I can say has ever seemed to abbreviate the carbuncle. It is a corrector of blood dyscrasia, and in the best sense an anti-purulent. In this connection we may say that that an anti-purulent is just what our therapeutics has lacked, and it is the first need of the practitioner when he has a carbuncle under his charge. Ordinarily I give no other internal remedy than ecthol. This remedy I continue until the patient has been discharged. But as improvement becomes marked and steadfast I allow the interval between the doses to become longer. First, he is given the remedy every two hours, then every four as he gets along substantially well. This, given in doses of a teaspoonful acts very promptly in giving, as it were, a check to tissue disintegration. Of course, opiates are often called for to overcome the pain present, in some cases to an almost insufferable extent. Papine is the best way to exhibit this agent, since it does not produce interference with the secretions as in the case with other opiates. I give it in doses of a teaspoonful every one or two hours until the patient has obtained relief from pain.

Coming now to the measures which should be employed locally and surgically, let me say that this part of the treatment is as important as the giving of internal remedies. During the time the inflammation is beginning, and up to the time when there is sufficient pus in the pointing carbuncle to justify an incision, I employ flaxseed poultices. These soothe and hasten the formation of the pus. An incision is now made and the pus all emptied; the cavity is scraped and all the dead, inflamed tissue is removed. It is then carefully cleaned with peroxide of hydrogen. Then absorbent cotton saturated with ecthol is applied to the exposed and adjacent surfaces. This is to be re-applied every four or eight hours, as the case in hand seems to warrant. Each opening is to be treated in this manner, and when we see a case of carbuncle with several centers ready to open we should remove as much of the diseased tissue as possible. Great freedom in the employment of the knife often greatly aids us in bringing about a speedy termination of the case in hand. It is the best thing we can do for our patient to lay the carbuncle

open and remove all the diseased tissue, and treat the lesion then with ecthol locally. If we employ this agent as our internal remedy, and use it also as a local application, we shall find that our treatment will prove more effective than by methods employed formerly.

I have treated fifteen cases of carbuncles in the manner here outlined, and the duration in each case has been greatly shortened, and the patients naturally got up with less weakness than they otherwise would.

Before employing this agent, a carbuncle meant a long spell and death or long-continued convalescence. The average duration of my cases under this treatment has been ten days.

I now give a brief account of several cases treated by the method I have here advocated:

S. C. T., aged 37, a miner by occupation. He had been a sufferer from malarial fever for a month or so, but was able to work. He had a carbuncle about the size of the palm of the hand on the neck. Three was a great deal of pain, and fever of 101° F. was present. This carbuncle had five heads or points, and seemed to invite incision, they showing the presence of pus. This was thoroughly opened and the diseased tissue was removed as thoroughly as possible. Peroxide of hydrogen was used to clean out the diseased cavity well, and then absorbent cotton saturated with ecthol was applied constantly throughout the course of the disease. Ecthol in doses of a teaspoonful was given every two hours. This patient began to improve at once, and there was no retrogression. The carbuncle began to take on a healthy action, and this patient was discharged nine days later.

Mrs. B. K. Y., aged 47, had a carbuncle on her face. This was attended with high fever and delirium. This carbuncle had three openings. It was treated as in the former case as regards local and surgical means employed. Besides these she had to take predigested milk and considerable quantities of wine, so weak was she. She took ecthol internally also, in doses of a teaspoonful every three hours.

J. C. P., aged 55, had a carbuncle on the nape of the neck. He had been a sufferer for years with asthma, and was in a low state of health. This patient I regarded as one who would give

me serious trouble, and who would in all probability die. The carbuncle was freely opened and treated in the same way as the first case here recorded as regards the surgical and local measures. He was from the first given predigested foods and stimulants, and ecthol was the only internal medicine he received except some papine to relieve the pain. This man went along slowly, but he recovered fully, and was able to go about his work seventeen days from the time I first saw him.

These cases are selected because they are ones which would test the efficacy of a treatment.—*M. P. Creel, M.D., in the Cincinnati Lancet-Clinic, April* 29, 1899.

OTITIS.—The more I see of chronic suppurative inflammation of the ear, the more convinced do I become that the element of chronicity is due to lack of thoroughness in treatment. The method of procedure mapped out below will not succeed in cases where necrosis has occurred, but in all others it will reduce the duration of treatment from months and weeks to days.

The patient is placed upon the side with the affected ear up. The concha is filled with Marchand's Hydrozone, which is allowed to remain until it becomes heated by contact with the skin, when, by tilting the auricle, the fluid is poured gently into the external canal. The froth resulting from the effervescence is removed with absorbent cotton from time to time, and more Hydrozone added. This is kept up until *all* bubbling ceases. The patient will hear the noise even after the effervescence ceases to be visible to the eye.

Closing the external canal by gentle pressure upon the tragus forces the fluid well into the middle ear, and in some instances will carry it through the Eustachian tube into the throat. When effervescence has ceased the canal should be dried with absorbent cotton twisted on a probe, and a small amount of boric acid insufflated.

The time necessary for a thorough cleansing of a suppurating ear will vary from a few minutes to above an hour, but if done with the proper care it does not have to be repeated in many cases. However, the patient should be seen daily, and the Hydrozone used until the desired result is obtained.

Care is necessary in opening the bottle for the first time, as bits of glass may fly. Wrap a cloth about the cork and twist it out by pulling on each side successively.

In children and some adults the Hydrozone causes pain, which can be obviated by previously instilling a few drops of a warm solution of cocaine hydrochloride. In this note it has been the intention to treat suppuration of the ear rather as a symptom and from the standpoint of the general practitioner.—*Abstract from article of Dr. Hugh Blake Williams of Chicago in Alkaloidal Clinic.*

EMPYEMA: ITS ETIOLOGY AND TREATMENT.—According to the author the disease known as empyema is not a sequel to pleurisy with effusion. It always either accompanies or follows acute croupous pneumonia. It is due to a plastic inflammation of the pleura, caused by the pneumococcus pneumoniæ. Prolonged drainage is unnecessary for its efficient treatment. The most effective treatment is to freely open the chest, thoroughly irrigate and remove the fibrinous masses, dress as frequently as may be required during the first twenty-four hours, remove the drainage tube, and not dress again for a week. Should signs of fluid be then present, re-open the wound and thoroughly flush the chest, and dress as before.—*W. T. Hayward, M.D., in Australian Med. Gazette.*

ACUTE PROSTATITIS.—Wash out the abscess cavity with hydrogen peroxide, give copious hot-water enemata and frequent hot hip-baths, avoid morphine, and advise against straining at stool and in micturition. To prevent degeneration of the gland substance, give triticum repens and fluid extract of tritipalm, combined with gum arabic or flaxseed infusion.—*L. H. Montgomery in Medical Revord.*

THE TOPICAL USE OF QUININE IN LEUCORRHŒA.—Dr. Hardwick speaks as follows about the topical application of quinine to the mucous membrane of the cervix uteri and vagina in cases of leucorrhœa: A patient, the mother of six children, who had been a sufferer from the above complaint for some years, having used the various remedies usually prescribed in such cases, but with only temporary benefit, her trouble sooner or later recurring, adopted the use, from prudential motives, of what proved to be quinine pessaries. Since using them not only had her leucorrhœa disappeared, but her general health had improved. I have since used quinine topically in several cases of simple leucorrhœa, always with great success—in fact I do not know of a single instance in which it has failed, or in which quinism has been produced. It may be used in the form of douche or pessary. I adopt the latter form as being obviously the better one; the drug has a better chance of closer and more continuous contact with the congested membrane. I prescribe 3 grains of the hydrobromate in a half-drachm pessary in combination with oleum theobromatis, but the pessus quininæ of the "Extra Pharmacopœia," containing the hydrochloride, answer just as well. One insertion a day is generally sufficient.—*Canadian Paactitioner and Review.*

THE POPULATION OF LONDON.—The density of the population of London has been doubled since 1887. "It is truly wonderful," says the *Lancet*, commenting on this, "that its vast population of 6,291,667, located on only 693 square miles, should have in 1897 so low a death rate as 17.7 per 1,000. This rate is not greater than that of a fairly healthful rural district." England well deserves the name she has received as the birthplace and home of sanitary science and practice.—*Medical Record.*

THE TRANSPLANTATION OF A HUMAN OVARY.—Dr. James H. Glass, in the *Medical News* for April 29th, records a very interesting case. A young woman who had had a double oophorectomy performed some two years previously applied for relief from the train of symptoms, lapse of sexual instinct, mental depression, insomnia, giddiness, palpitation, heat flushes, pelvic pains *et hoc genus omne*, which are not uncommon sequelae of that operation. General treatment proving of no avail, on May 11, 1898, ventrofixation was performed. A second patient, aged seventeen years, married, having suffered serious injury during parturition, which had resulted in such deformity that future child-bearing would inevitably entail Cæsarean section, it was determined to sterilize her by removal of the tubes and ovaries. On May 14th both patients were, with their consent, anaesthetized together, with the view of transplanting the healthy ovary about to be removed from the one woman into the peritoneal cavity of the other. The healthy ovary, immediately on removal, was placed in guaze kept moist with warm normal salt solution. When the first operation was completed, the vagina in the other patient and the connective tissue down to the cervix were incised. The latter was then stripped up to the peritonaeum with the finger, and this membrane carefully raised from its attachments to a point approximating the normal position of the ovary. Oozing was controlled by compresses of hot saline solution, the ovary anchored in position by closing, with two tiers of fine cumol catgut, the canal through which it had been introduced, and the vagina lightly packed with silver gauze. The recovery was uninterrupted. After six days a condition of sexual erethism lasting for several days and accompanied by erotic dreams had occurred. After sixteen days menstruation began and lasted two days. It was then absent until December, when it again appeared and was normal in every way. Eight months after the transplantation the patient had regained her equilibrium, and was apparently quite well and healthy. The value of this observation appears to be considerable; for while much of the patient's relief may possibly be attributable to the ventrofixation, the return of the sexual instinct, the recurrence of the menses, and the improved metabolism would appear to be undoubtedly due to the transplantation of the ovary.—*N. Y. Med. Jour.*

Olive Oil in Hepatic Colic.—I wish to speak especially of a new remedy, olive oil. The homœopaths, to whom we owe our knowledge of some new medicines, were the first to devise, some twenty years ago, the use of olive oil in large doses in the treatment of hepatic colic. They were, in this, in part faithful to their doctrine, since they combatted hepatic calculi composed essentially of cholestrin, a fat body, by another fat body—*similia similibus*. We note, however, that they employ it in high doses, which is far from being Hahnemannian doctrine. From the United States the method passed to England, where it was employed by regular physicians. In France, it was only after the work of Touatre, in 1887, that this preparation began to be used; and Chauffard and Dupre, in 1888, and Martial Durand, in 1889, Huchard, Germaine See, and Marcigney have successively reported good effects from this method.

All these cases have been collected in an excellent work by one of my students, Dr. Willemin of Vichy, from whom I borrow some of the most important points of this study. To-day the cases are sufficiently numerous to enable us to assert that olive oil in large doses is one of the best modes of treatment of the pain prodnced by biliary calculi. It arrests the acute pain almost instantly, and considerably diminishes the period during which the patients suffer from heavy pains, weakness and malaise.

Failures are the exception, and, strange as it may appear, the large quantity of oil is generally well supported by the patient, and is not vomited. It is necessary to give, at a single time, 200 grams (6 to 7 ounces) of pure olive oil. To remove the disagreeable taste it is only necessary to have the patient rinse his mouth with water containing a little brandy or orange-juice. For my service I add to the oil 20 grams of beef bile for each 200 grams of oil. This mixture is slightly bitter, but it is well supported by the patients, and the results have been the same as with oil. I have been led to employ bile by the researches of Prevost and Binet, who have shown that this substance is a powerful cholagogue.

We are still more ignorant of the true method of the therapeutic action of this oil. Touatre held that that the oil always brought away the calculi. We now know the cause of this

error. Touatre confounded with calculi the oil concretion resulting from the incomplete digestion of the oil.

It can scarcely be admitted that the oil acts directly upon the calculi, for the oil cannot pass into the biliary passages. Stewart maintained that the oil is decomposed into a fatty acid and glycerin, the latter producing in the intestine reflex movements favoring a discharge of the calculus. Others, particularly Rosenberg, consider bile as a powerful cholagogue, and that it is this cholagogic action which explains the favorable effects of the oil.

Finally, it may be mentioned that the direct action of the oil upon the orifice of the common duct, and especially upon the adjacent region of the duodenum, tends to diminish the reflex spasm which is the first cause of the colic. For myself, I am ready to adopt the opinion of Willemin, who thinks that oil in large doses acts in several different ways, first, as a cholagogue; then by diminishing reflex action; and finally by favoring the descent of the calculus in the intestine by its laxative action. Whatever may be the mode of its action, the number of successful cases is to-day so large that before resorting to the injection of morphia we should always make our patients suffering from hepatic colic take the single dose of 200 grams of olive oil, either with or without the addition of beef bile.—*Rational Treatment of Hepatic Affections, bg Dujardin-Beaumtez; translation in Modern Medicine by Dr. J. H. Kellogg.*

Golden Rules.—The following suggestions in abdominal surgery are said to have come from a celebrated London surgeon, and are given in the *Medical Record:* Always avoid purgatives in treating a patient who has swallowed a foreign body. Give opium and constipating food—boiled eggs, cheese, puddings, potatoes, etc. Never close any wound of the abdominal wall till all hemorrhage has ceased. Never, under any circumstances, apply pressure to a wouud of the abdominal wall to arrest hemorrhage. Never mind increasing a superficial wound of the abbomen in order to remove a foreign body or to secure a bleeding point. Never probe any wound in the abdominal wall. Never forget that all abscesses of the abdominal wall should be opened freely and at once. Never hesitate or delay to open

[illegible] ine to rupture or injury to the [illegible] strangulated hernia. It is not [illegible] will prove unsuccessful in herniotomy [illegible] allowing the bowel to become irreducible [illegible] by an opiate masking the acute [illegible] obstruction, and peritonitis. Never tap a [illegible] through the peritoneum. Always relax [illegible] after suturing. Never ligate en masse in [illegible] piecemeal; the constricted edge of [illegible] may unravel and fatal hemorrhage re[illegible] the viscera never neglect to pass your [illegible] the wound to make sure that the reduction [illegible] And be careful never to push the bowel [illegible] between the muscles or into subperitoneal tis[illegible] *Practical Medicine.*

[illegible] TREATMENT OF WARTS.—Louvel-Dulongpre advocates [illegible] *Mittheilungen* the following painless treatment, [illegible] advantage of leaving no cicatrix: A concen[illegible] of bichromate of potash in boiling water is pre[illegible] adding to the latter enough of the salt to [illegible] saturated solution. On cooling, a certain quantity of [illegible] will again be precipitated. The supernatant fluid is to [illegible] once a day by means of a brush.—*Jour. of Practical* [illegible]

[illegible]

℞ Potassii iodidi.....ʒiij
Extracti belladonæ fluidi.....ʒi
Extracti lobeliæ fluidi.....ʒij
Extracti grindeliæ fluidi.....ʒss
Glycerini,
Aquæ destillatæ.....aa ℥iss

—*Bartholow.*

PEROXIDE OF HYDROGEN is the best disinfectant for a wound from which tetanus may be feared, unless Hydrozone is better, [illegible] one of our exchanges.

SECRET REMEDIES.—So far as secret nostrums are concerned the chief objection to them lies in the fraud and deceit upon which they are based. The claim of many of them to contain some remedy of great value, entirely unknown to the medical profession, is absolutely without foundation. I believe I am correct in saying that there in not a single instance on record of a valuable addition being made to our materia medica in this way. It may be true that the remedies they contain are good in their proper place, but how is the general public to know when they are suited to a given case?

A question upon which beginners in medicine need and desire information is regarding the use of proprietary remedies. Ought a physician to prescribe Lactopeptin, or Bromidia, or Scott's Emulsion, or Hayden's Viburnum Compound, or Fellows' Hypophosphites, or Seng, or Maltine, or Kola Kardinette, or Sanmetto, or Tongaline? The fundamental idea underlying these preparations is that some prescriptions can be better compounded on the large scalc by the manufacturing pharmacist than on the small scale by the retail druggist. For instance, the drug store does not contain the facilities for compounding properly such a combination of digestives as Lactopeptin. Very few physicians possess the pharmaceutical knowledge required to write a prescription of fluid extract of viburnum that will be as palatable and satisfactory as Hayden's Viburnum Compound. Then, as to quality, the production of a well-known firm with a reputation to sustain is sometimes more reliable than the average material found on the druggist's shelves. Regarding some drugs, this is especially true. If I specify Wyeth's Beef, Iron and Wine, there is no question of its quality. But when I simply order beef, iron and wine, and my prescription is taken to a department store, I need not be surprised if I don't get results. This happened to me only last week. After one dose the patient asked me to taste it, and there is only one word in the English language that adequately describes the contents of that bottle, viz.: swill. A pint of it had cost 41 cents! I think in this matter, as in many others, the wise course is the medium between the two extremes.

I think it is a mistake to absolutely reject all these preparations, and a worse mistake to run after every new proprietary remedy that persistent sample agents pile upon our desks. The

while I have adopted in this matter is somewhat as follows: I have no hesitation in prescribing a non-secret proprietary remedy if the question of reliability or palatability seems to make it desirable, always provided that the manufacturer advertises it to the profession only. I have ceased prescribing Scott's Emulsion because the proprietors are advertising it to the general public, thus putting it on a par with secret nostrums. They have chosen their medications and are welcome to them.—Wm. Ritternouse, M.D., in *Medical Standard.*

MUSTARD FLOUR AN ANTISEPTIC AND DEODORIZER.—Common mustard can be found in almost every house, and when other antiseptics are not accessible the hands can be made aseptic by rubbing them well with mustard flour, moistened with hot water, so that paste is formed. This should be rubbed in very thoroughly for one or two minutes; then wash the hands in plain hot water. In this way all disagreeable odors can be removed from the hands, such as those of fetid pus and the post-mortem room.—*Progress of Med. Science.*

CARRON-OIL INJECTIONS IN GONORRHEA.—W. E. Wanley (*Brooklyn Medical Journal*, xiii, p. 182; *Merck's Archives*, March,) of Brooklyn, at the suggestion of a patient, has used linimentum calcis as an injection in gonorrhea and gleet with unusually good results. The patient had used it for a burn and it occurred to him that it might be good for gonorrhea. The doctor at first paid no attention to the suggestion, but latter gave it a trial. He has since used it in twenty-seven cases of acute specific urethiritis after a three-days treatment with the compound copaiba mixture of the *National Formulary*, using it four times a day, and in every case a cure was effected in three or four days. In nine cases of gleet a complete cure was accomplished in from seven to nine days with the carron-oil injections only. The author warns against the danger of this emulsion becoming rancid if kept long, and advises that it be used only when freshly prepared.—*N. Y. Med. Jour.*

Editorial.

THE DECENNIAL REVISION OF THE PHARMACOPEIA.

Medicine is not an exact science, nor may it ever be; yet the labors of the pathologists and physiological chemists have done much in the past to bring it nearer and nearer to correct and demonstrable lines. As Bartholow has said, "the three medical graces are diagnosis, prognosis and therapeutics, but the greatest of these is therapeutics." In the revision of the Pharmacopeia with each decennial period much has been done to bring order out of chaos and to relegate to obscurity many useless traditions, as well as the development of new remedies, and new uses and combinations of old ones. In the last revision a decided step in progress, though limited, was made in the standardization of opium, cinchona and nux vomica, to which have been added, by the British Pharmacopeia of 1888 ipecac and belladonna.

There are yet quite a number of other drugs which, by reason of the soil in which they grow, their time and method of collection, their age, together with unknown or indefinite factors, and which, although from nature's grand arcana, vary materially in physiological activity, some of which are dangerous from the limited quantity likely to produce a lethal effect, others of equal importance from the frequency of their use or critical conditions in which they have been found of service. It is by no means uncommon for one practitioner to speak or write in the highest terms of the clinical results of a certain drug, and others to characterize the same as useless in like cases. This is not due to a difference in diagnostic acumen, but the rather to a marked difference in the physiological activity of different specimens of the same drug.

It is a common experience with physicians to obtain unexpected results from the administration of solid, powdered and fluid extracts, tinctures, and other drug derivatives. Sometimes the action is excessive, frequently it is too weak, and seldom under like conditions do equal doses of of two preparations of the same drug prepared by the same process produce concordant results. Of course idiosyncrasy plays an important role under such circumstances, and constant changes in the physical condition of the diseased must be reckoned with; but we presume to say that, granting the influence of such factors, the chief source of uncertainty is the lack of uniformity in the preparation of galenical preparations.

With all our boasted progress and enlightenment it is an unfortunate and unassailable truth that scores and hundreds of conscientious practitioners have *wholly renounced* the use of such powerful drugs as ergot, cannabis indica, and other drugs, in the disgust and chagrin inspired by frequent failure to obtain curative results, by the utter worthlessness of

many of the preparations upon the market, by the inferiority of numerous parcels, and by the equally dangerous potency and toxicity of yet others occasionally encountered when least expected. There has been no uniformity, no certainty—only doubt and distrust, culminating in the extinguished or lessened use of a valuable therapeutic agent.

Logically and practically, there is no reason why the revisers of the Pharmacopeia should hesitate to apply the same official sanction to the standardization of Belladonna, Calabar, Gelseminum, Hyoscyamus, Podophyllum, Colchicum, Conium, Ipecac, Stramonium or Veratrum, and other valuable drugs. Their importance and their toxicity place them in exactly the same category with opium and nux vomica, and on the same grounds of safety and uniformity, only assayed and standardized preparations should be used.

Be the means of standardization what they may, every preparation of every powerful drug must be adjusted to fixed standards if the requirements of modern medicine are not to be ignored and scouted. Sooner or later this principle of standardization should be practically recognized by every Pharmacopeia, and in no partial or grudging manner, but broadly and freely. And the day is bound to be hastened by the enactment of laws forbidding the adulteration of foods and drugs, and demanding official standards of strength, quality and purity. Such laws are multiplying. A Federal measure is no remote probability. One has already been drafted. The execution of these laws in respect to drugs will demand the establishment of fixed standards; and if the latter are not formulated by the Pharmacopeia of 1900, that great work will simply renounce a wide sphere of salutary authority.

In conclusion, we respectfully submit, as well as heartily endorse, the following quotation from an article by Dr. E. M. Houghton of Detroit in the *Journal of the American Medical Association*, April, 1897:

"A physician may be ever so well versed in therapeutics, but if his prescriptions are filled with inert drugs, or drugs varying in strength, his efforts may be useless or even dangerous. In the past the pharmacist has greatly aided our efforts by improving the preparation of the various remedies. But the time will soon come when he should be held responsible not only for the chemical and botanical purity of his preparations, but also for the physiological activity of those important medicinal agents which cannot be standardized by chemical methods."

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The Executive Committee and the Committee of Arrangements of the Association have changed the date of the next meeting in Chicago from September 12–15 to October 3–6 inclusive.

The Autumn Fete, to be known as the American Festival, will be held in Chicago, beginning September 25 and ending October 9 with the laying of the corner-stone of the Federal Building, when the President

of the United States and his Cabinet will be in the city. During this time the fare to Chicago from all points will be a flat one fare for the round trip, without the necessity of certificates or endorsements. The limit of the tickets is so long that a protracted stay could be made in Chicago in order to take in the clinical facilities of the meeting, as well as enjoy the added attractions of the Festival.

It is earnestly hoped that this change in date will meet the approval of the members of the Association, and that the next meeting will be the largest in the history of it.

THE COLUMBUS MEETING.

The annual session of the American Medical Association will be held in Columbus, O., June 6, 7, 8 and 9; the American Academy of Medicine, June 3 and 5; and the American Medical Editors' Association on June 5. The central location of Ohio's capital, its railroad facilities, with reduced rates, and ample hotel accommodations, give every reason to anticipate the largest meetings ever held. The Committee of Arrangements have been elaborate in their preparations for the meetings, with especial attention to make the occasion both enjoyable and profitable to all who may attend. The wives and daughters of members will be carefully and thoroughly looked after, and every possible means will be devoted to their care, comfort and enjoyment.

THE WORKING TOOLS OF THE CRAFT.—Coincident with the onward progress of the medical art has been the advance in our knowledge of the cause of disease. As the practice of medicine and surgery has gradually but surely emerged from the darkness of charlatanism and empiricism and approached more nearly to the dignity of a science, the pressing demand for better facilities and better "working tools" has been met alike by the skilful instrument maker and the modern expert pharmaceutical chemist. The surgeon of to-day has at his command a full armamentarium of ingenious instruments of precision, cunningly devised for certain specific purposes and upon which he can confidently depend. The modern physician also has been furnished with therapeutic instruments of precision, originated by the physiological chemist as a result of the close study of nature's laws and elaborated and perfected by expert pharmaceutical skill. Contrast for a moment the "working tools" of the physicians of a hundred years ago with those of the practitioner of to-day; the bolus and nauseous decoction as against the dainty tablet and the palatable elixir. Up to this point the modern surgeon possesses no advantage over his medical confrere as far as his "working tools" are concerned; but here the parallel ceases. The surgeon, when he needs a new scalpel for an important operation, examines the stock of a reputable dealer and personally selects an instrument of the best quality obtainable. He sees

it, handles it, and assures himself that it is well made and properly tempered. If, perchance, the knife is not as represented, he soon discovers it, and promptly discards it for one which is more satisfactory and reliable. The surgeon not only *personally selects*, but *personally employs*, his instruments, and therefore cannot be deceived in them. But how about the equally important "working tools" of the physician—*i.e.*, the remedies which he orders for his patients? After a series of careful clinical experiments with various remedies of a certain character he comes to the deliberate conclusion that one particular preparation gives him the best therapeutic results, and that it will hereafter become one of his trusted "working tools." Take, for instance, Pepto-Mangan "Gude," the value of which almost every modern practitioner is now familiar with. The physician has learned from experience just what this particular remedy will accomplish; he knows its advantages, limitations, indications and dosage, and prescribes it in properly-selected cases with full confidence in its action and effects. Just here, however, the physician *loses control of his "working tool,"* unless he is positively certain that his prescription will be filled exactly as specified. It is, of course, manifestly impossible for the busy physician to personally follow up every prescription in order to assure himself that some inferior and more or less worthless substitute is not dispensed in place of the article prescribed; and he must therefore adopt some other means to prevent this reprehensible practice. There are three ways in which the physician can protect himself and his patient against this unwarranted, inexcusable and dishonest interference: (1) Let him be certain that his prescriptions are filled only by pharmacists known to him to be above such disreputable catchpenny practices. (2) Specify plainly and unmistakably the particular preparation desired. (3) When possible order an original unbroken package. We feel strongly about this very common and nefarious practice of substitution, which is injurious alike to the welfare of the patient and the reputation of the physician, to say nothing about the injustice to the reputable manufacturers, who have spent brains, time aud money in putting valuable and eminently eligible "working tools" into the hands of the profession.

FAMILIAR CLINICAL PICTURE.—One of the most common class of cases is that in which there are no well-defined characteristic symptoms of organic disease, but in which there are disturbances of practically all the functions of the body. This condition is variously termed general debility, malnutrition, general atony, etc. The symptom-group is an exceedingly complex and varied one, but the most striking disturbances are those connected with the processes of metabolism; the patient is unable to replace by food the active waste occasioned by the physiologic functions. In consequence of this nutrition suffers, vital force becomes diminished, and there is functional disturbance of practically all the organs of the body. The stomach and the processes of digestion become partic-

ularly enfeebled, and as a consequence there arise the symptoms of atonic dyspepsia, with lack of appetite and inability of the digestive organs to prepare the food for assimilation. The patient's vital powers are at a low ebb, and nature's method of recuperation—that is, by assimilation of food—is effectually inhibited by inability of the organs to furnish the required properly-prepared nourishment. Every physician has many times realized the absolute uselessness in these dases of the ordinarily-employed tonics—iron, arsenic and strychnine. It is soon apparent that the remedies are either not absorbed, or, if they do enter the system, they fail absolutely to re-establish the proper ratio of metabolic waste and repair. It is now universally conceded by authorities that the first requisite in the treatment of this class of cases is to foster the patient's nutritive functions so that food will become assimilated, and thus restore wasted tissue and impaired vital forces. The stomach is the organ of prime importance, and its normal functional activity must be re-established by remedies which have a direct tonic, alterative and stimulant influence upon its enfeebled, inactive mucous membrane. Stomachics—gentian, taraxacum, phosphoric acid, etc.—are the agents of most service. When, however, these stomachics are combined in a certain manner with a remedy which, according to the highest medical authorities, is the best promoter of assimilation, the indications for treatment are completely met. Gray's Glycerine Tonic Comp. combats malnutrition upon the most rational scientific basis—that is, it re-establishes normal nutritive processes by its stimulant and alterative influence upon the digestive organs, and also furnishes the wherewithal—glycerine—to cause the assimilation of food and medicines. It gives nature the needed chance to resume its normal work of repairing exhausted vitality and wasted tissue. While primarily a stomachic, Gray's Glycerine Tonic Comp. is of greatest value in all conditions of systemic depression or exhaustion, occurring independently or as a consequence of severe organic diseases, such as tuberculosis, Bright's disease, etc. It antagonizes depression by propping the natural functions of the body, by engendering appetite, and ensuring the absorption and assimilation of food—nature's method of repairing waste.

Bisol.—When one intestinal astringent can be given in a pleasant and palatable solution, while another—also with desirable therapeutic action is unsightly and distasteful—there certainly is no question as to which should be chosen. For these reasons a soluble form of bismuth known as Bisol is a most desirable drug, at this time of year, in the treatment of the numerous gastro-intestinal disorders of the little ones. It is a salt, virtually harmless, which is prescribed in smaller doses than the older series of bismuth salts (3-7½ grains), and has the additional advantage of forming a perfectly clear solution in water. It has been found highly efficacious also in the diarrhœas of typhoid, of dysentery, and of phthisis. In gastralgia and vomiting, it is of the greatest service. By

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Prompt relief, unaccompanied by habit or
the up-to-date practitioner desires most in
over the lower border of the liver, or lower
short, be it headache, sideache, backache, or
used by suppressed or irregular menstruation,
grain tablets of Antikamnia. This dose may be
two if needed. For very prompt relief it is ad-
tablets and swallow them with a little wine, diluted
Ohio Medical Journal.

SIN.—It has been found that the albuminate of mercury in
as presented in the neutral soap known as Sapodermin, is a
rmicide with marked penetrating properties. At the same
it is non-irritant, non-toxic and non-corrosive. The soap is
he purest materials, and is so formulated as to make a good nu-
the skin. Sapodermin is used for general antisepsis, and is also
pecial value to the dermatologist in the treatment of all skin diseases
parasites.

THE JEFFERSONIAN.—This magazine is published monthly during the college year by the students of the Jefferson Medical College. It is the desire of the editors of this magazine to obtain a complete list of the alumni of the college, and any information concerning the whereabouts of any of the members will be gladly received. Alumni will please communicate with the editors of *The Jeffersonian*, Jefferson Medical College, Philadelphia, Pa.

ERRATA IN MAY NO.—Page 202, near top—

"Again the invasion of pathogenic bacteria, which in themselves though harmless, yet prepare the soil,"

Should read as follows:

"Again, the invasion of pathogenic bacteria, *often depend upon the results of fermentative bacteria*, which, though harmless in themselves, yet prepare the soil."

CHEMICAL FOOD is a imxture of Phosphoric Acid and Phosphates, the value of which physicians seem to have lost sight of to some extent in the past few years. The Robinson-Pettet Co., to whose advertisement we refer our readers, has placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

: PAST TEN YEARS I have constantly prescribed Peacock's l find it the sedative and anodyne *par excellence* in all convulsotic lesions, and I prescribe no other. I find it superior to ial bromides in simple combinations. It will give me much urther utilize it as occasions demand.—CHAS. KELLY GARD-*Huntington, W. Va.*

BEEN a practicing physician for 25 years, and have never remedy than Seng. There is nothing better in dyspepsia infantum. I have no use for cod liver oil, as Seng is pleasnd gives much more gratifying results in all cases where a needed.—SAMUEL F. MOORE. M.D., *McKey, I.T.*

DICAL REVIEW.—The *Medical Review* of St. Louis has changed ıg been purchased by Dr. Hanau W. Loeb of that city, who, ill continue its publication. So far it seems decidedly a ıe better.

OLIDATION OF KANSAS CITY JOURNALS.—The *Kansas City* : and the *Kansas City Lancet* have been consolidated. Dr. is the editor of the journal thus formed.

ECK MILK SECRETION—

Atropinæ sulphat.....gr. 1-32
Magnes. sulphat.. .....ʒ ij plus ʒ viss
Infus. gentianæ.....℥ viiss
. S. Tablespoonful every two hours. —*Gaz. Hebdomad*

Reviews and Book Notices.

OF OPHTHALMOLOGY. By Dr. ERNEST FUCHS, Professor of mology in the University of Vienna. Authorized Translation. from the Seventh Enlarged and Improved German Edition, UANE, M.D., Assistant Surgeon Ophthalmic and Aural Insti-v York. 8vo, cloth, pp. 860, with 277 Illustrations. Second n Edition. D. APPLETON & Co., Publishers, New York.

unquestionably one of the best works of the day, covering the specialty of ophthalmology. The care

and judgment in the selection and presentation of facts, the thoroughness and freshness of the information, and its scientific accuracy, have won for it the first place in the estimation of the student, the general practitioner and the specialist. The translator admits having taken considerable liberties with the German text, but only such as were demanded by securing that clearness and the necessities of the English idiom requiring the change; which by its clear, concise and pleasing style adds to its value with our people, and which have received the entire and cordial approval of Prof. Fuchs. Some additions have been made, which are enclosed in brackets, and which but add to the value of this very comprehensive text-book from an American standpoint. Two new sections have been added by him, §125 A (p. 516) on hetorophoria, and §148 A (p: 724) on the use of homatropine and other cyclopegics, and the general subject of refractive errors. The cuts of the instruments in the appendix were furnished by Tiemann & Co. and Meyrowitz of New York City, and these instruments, therefore, can readily be procured in this country.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONERS' INDEX: A Work of Reference for Medical Practitioners: Vol. XVII. 8vo, pp. 758. E. B. TREAT & Co., 241–243 West Twenty-third street, New York, Publishers, 1899. Price $3.

The contributions contained in the seventeenth annual issue of this valuable compendium show that a very large amount of practical work has been done in every department of medicine and surgery during the past year. By repeated condensation and pruning, undertaken with the utmost care, the book is retained in its proper dimensions, a size so well adapted for easy reference. The literary matter and the illustrations will well compare with any of its predecessors, and, being a work the joint authorship of competent and able men throughout the world, no gap has been left or duplication of matter permitted.

The Therapeutic Review of the past year and Dictionary of New Remedies, by Dr. Wm. Murrell, occupying about 84 pages of the book, and the 26 pages devoted to Practical X-Ray work, by Dr. R. N. Wolfenden, alone are worth the price of the entire volume, to say nothing of the Electro-Therapeutics, by A. D.

Rockwell; the atlas of Pathogenetic Bacteria, by Samuel G. Shattock, F.R.C.S.; Notes of American Legal Decisions; Sanitary Science of 1898, and the Dictionary of New Treatment in Medicine and Surgery by the various able compilers.

ANNUAL AND ANALYTICAL CYCLOPEDIA OF PRACTICAL MEDICINE. By CHAS. E. DE M. SAJOUS, M.D., and One Hundred Associate Editors, assisted by Corresponding Editors, Collaborateurs and Correspondents. 8vo, cloth, pp. 600. Illustrated with Chromo-Lithographs and Maps. Vol. III. F. A. DAVIS Co., Publishers, Philadelphia, 1899.

The third volume of this excellent substitute for Sajou's Annual fully sustains the universal commendation accorded its predecessors. It fully meets the wants of the general practitioner, and has all the leading advantages of the well-known Annual. The excellent articles on "Infantile Myxœdema," by Prof. Osler and Dr. Martin, of Baltimore; "Exophthalmic Goitre," by Prof. Putnam, of Baltimore; and "Goitre," by Prof. Adami, of Montreal, form a symposium of especial value. "Dysentery," by Dr. Flexner, of Baltimore; "Endometritis," by Prof. Byford, of Chicago; "Dislocations and Fractures," by Stimson and Keyes, of New York; "Gout," by Dr. Lenison, of Copenhagen; "Hipjoint Disease," by Reginald H. Sayre, M.D., of New York; "Eczema," by Prof. Stellwagon, of Philadelphia; and "Hysteria and Hypnotism," by Prof. Eskridge, of Denver, are models of their kind, and may be mentioned as particularly valuable to the general practitioner. The volume begins with Dislocations and ends with Infantile Myxœdema. The mechanical execution of the work is quite in keeping with its valuable contents, and the chromo-lithograph engravings are beautiful indeed.

SAUNDERS' MEDICAL HAND-ATLAS—Atlas of Diseases of the Skin, including an Epitome of Pathology and Treatment, by Prof. Dr. Franz Mracek of Vienna. Authorized Translation from the German. Edited by Henry W. STELLWAGON, M.D., Clinical Professor of Dermatology, Jefferson Medical College, etc. 8vo, cloth, pp. 199, with 63 colored plates and 39 full-page Half-Tone Illustrations. Price, $3.50. W. B. SAUNDERS, Publisher, 925 Walnut street, Philadelphia, 1899.

One of the most valuable features of Saunders' Medical Hand-Atlases is that they offer a ready and satisfactory substitute for clinical observation, almost equal to that available to the resi-

dents of large medical centres and the habitues of large hospitals. To those unable to attend important clinics, they are well-nigh invaluable, as we find in them, presented in convenient form, the most accurate reproductions of clinical work, interpreted by the most able clinical teachers; and especially is this so in regard to diseases of the skin.

The great success of these hand-atlases is demonstrated by the fact that they have appeared in nine different languages—German, French, English, Italian, Russian, Spanish, Danish, Swedish and Hungarian. The following note from the American publishers indicates the appreciation of the work in this country:

"It may be of interest to you to know that the success of this series of Atlases has been rather remarkable. When we contracted to sell 100,000 copies of these books, we felt that it was a very large undertaking, but so far have all our calculations been exceeded that it now looks as if the sale will exceed 200,000 copies."

SAUNDERS' MEDICAL HAND-ATLAS: Atlas of the External Diseases of the Eye, including a Brief Treatise on the Pathology and Treatment. By Prof. Dr. O. HAAB of Zurich. Edited by G. E. DE SCHWEINITZ, A. M., M.D., Professor of Ophthalmology in Jefferson Medical College, etc. 8vo, cloth, pp. 228, with 76 Colored Plates and 6 Engravings. Price $3 net. W. B. SAUNDERS, Publisher, 925 Walnut street, Philadelphia, 1899.

It is unnecessary that we commend the clinical work of Dr. Haab, or its translation by one so well known as Dr. De Schweinitz, who has adapted it especially to American readers. It is natural to conceive that practical illustrations of the external diseases of the eye would be a work of difficulty, and in fact an impossibility almost without the advantages of the later developments in art and science. The illustrations here, with a very few exceptions, are all taken from nature, and so far as our own limited experience goes are correct representations, and cannot fail of being of the greatest advantage to students, practitioners, and the most proficient specialist. The book, so handy and convenient in size, almost affords equal advantages to a most extended clinic. The hand-atlases have evidenced so great a degree of practibability that the Medical Department of the U. S. Army

[illegible] "Atlas of Operative Surgery" as the standard, and use it [illegible] in the instruction of various regiments and army posts.

PRACTICAL MATERIA MEDICA FOR NURSES. WITH AN APPENDIX CONTAINING POISONS AND THEIR ANTIDOTES WITH POISONING EMERGENCIES, MINERAL WATERS, WEIGHTS AND MEASURES, TABLE LIST, AND A GLOSSARY OF TERMS USED IN MATERIA MEDICA AND THERAPEUTICS. BY EMILY A. STONE, graduate of the Training School for Nurses, Lawrence, Mass.: late Head Nurse, Mercy Hospital, Chicago; Author of "Practical Points on Nursing," etc. 8vo, cloth, pp. [illegible]. Price $1.50. W. B. SAUNDERS, Publisher, 925 Walnut street, Philadelphia, 1899.

The subject matter of this important little volume is arranged in a practical order, rendering it convenient for study and especially valuable as a work of reference for ready consultation. The consideration of the various drugs includes their names, both English and Latin, their sources and composition, various preparations, physiologic actions, doses, directions for handling and administering, and the symptoms and treatment of poisoning. It is a well written, eminently practical, volume, and fully instructs the nurse in the important details and essentials of the various drugs. It will prove alike beneficial as a condensed compendium for the medical student, and the practitioner will find it useful for quick reference.

AN ESSAY ON THE NATURE AND CONSEQUENCES OF ANOMALIES OF REFRACTION. By F. C. DONDERS, M.D., late Professor of Physiology and Ophthalmology in the University of Utrecht. Revised and Edited by CHAS. A. OLIVER, A.M., M.D. (Univ. of Pa.); One of the Attending Surgeons to the Wills' Eye Hospital; One of the Ophthalmic Surgeons to the Philadelphia Hospital, etc. 8vo, half-morocco, pp. 81, Illustrated. Price $1.25. P. BLAKISTON'S SON & CO., Publishers, 1012 Walnut street, Philadelphia, 1899.

One hundred and thirty-nine aphorisms of the immortal Donders, with a handsome steel engraved portrait, excellently printed on the best of book paper and handsomely bound in half-morocco are enough to demand that this beautiful edition, edited by Dr. Oliver, should have a prominent place on the table or bookshelves of every one interested in Ophthalmic work. The editor has very appropriately dedicated his excellent posthumous translation of Prof. Donder's essay to Herman Snellen, M.D., Professor of Ophthalmology in the University of Utrecht.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL.

DEVOTED TO MEDICINE AND SURGERY.

SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.

DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

Vol. XXI. NASHVILLE, JULY, 1899. No. 7.

Original Communications.

ADDISON'S DISEASE, WITH REPORT OF A CASE.*

BY PERRY BROMBERG, M.D.,
Demonstrator of Anatomy, Medical Department University of Tennessee.

MR. PRESIDENT AND GENTLEMEN: I shall first beg leave to report the following case, which has no particular interest except that naturally belonging to a disease so rare and so little understood.

Mr. B. L., aged 33, white, married, by occupation a merchant, with an excellent family history, with no trace of tuberculosis, cancer or syphilis in any member of his family. He consulted me at my office Sept. 12, 1897, giving the following history: He had come to Nashville from an adjoining city some seven or eight years previously, in perfect health. Settling here, he made heavy investments, which from the first proved a fail-

*Read at meeting of Nashville Academy of Medicine, May 25, 1899.

[illegible] a large expenditure of personal capital. [illegible] business affairs, he soon began to suffer from insomnia, and interest for the first time that he was giving very large sums, being moved to do it in the position for any support of the community during and suffering among. He commenced to show evidences of this time. He had previously been treated by a prominent physician, who advised him to stop working quite hard in his business and take a long rest of the city; this proved to be a failure. The situation remained practically the same and [illegible] of the physician's advice he resumed his business. [illegible] during and paying out large sums, which worried him more and more. The situation gradually growing worse, being [illegible] under the influence of some powerful stimulant, frequently working the four the entire night. Finally, acting upon the advice of his physician, he commenced to visit the city, and visited some nearby mineral springs. He noticed at this time a rubbly condition of the skin, which he says was attributed to his liver. While away, however, he continued to grow weaker and weaker, the discoloration of his skin becoming darker and darker, and after a stay of four months he returned. The next two years were spent in going from place to place, seeking health and consulting physicians. At times the insomnia, restlessness and asthenia would improve, only to return again. He remembered no other symptoms, and had no pain during the entire time. His condition was strikingly peculiar. The discoloration of the skin, his anxious expression, his constant shifting, yawning and stretching, at once attracted my attention. The discoloration was particularly well marked on his face and hands, together with broad bands of pigmentation about the waist and shoulders. The buccal mucous membrane was melanotic in several places. The penis and scrotum were considerably darker than the surrounding skin surface—in fact, they were almost black. The palpebral conjunctiva was apparently normal. The pulse ranged from 110 to 120, and was slightly irregular and feeble, the slighest exertion increasing its irregularity, and no murmur or enlargement could be detected about the heart. There was no pain on pressure over the region of the kidneys. Asthenia was marked, and being normally a very energetic man, he noticed this weakness,

which markedly contrasted with his natural condition. His appetite was greatly impaired, there was some nausea, but he had never vomited. He had had several slight attacks of diarrhœa, but rather tended toward constipation. I advised him to go to bed, and prescribed a tonic containing iron, arsenic and strychnine. The following day, on being called to see him, I found that he had passed another sleepless night. His bowels had moved frequently, nausea had been persistent, and he had vomited several times. His temperature was subnormal, pulse 130 and very feeble; he complained of slight pain in the abdomen, not localized. He was considerably weaker than on the previous day. I prescribed nitro-glycerine, increased the dose of strychnine and ordered milk punches at frequent intervals. With consultation the following day my diagnosis of Addison's disease was concurred in, and the amount of stimulation was increased; but in spite of them he continued to grow weaker, and ten days later died from sheer exhaustion. An autopsy could not be obtained.

Dr. Addison of Guy's Hospital, in 1855 first described the disease that now bears his name, the leading characteristics of which are anemia, general languor and debility, remarkable feebleness of heart action, irritability of the stomach, and a peculiar bronzed skin, associated with a diseased condition of the supra-renal capsule.

The disease affects males more frequently than females, occurs most often between the ages of 20 and 40, is extremely rare in young children (only 48 cases have been recorded), and is usually preceded by a history of tuberculosis, syphilis, cancer, injuries, worries or exposure.

From the pathology of this disease, it is quite difficult to explain all the symptoms. Many theories have been advanced, but none so far have been able to explain its many and varied peculiarities. Text-books are noticeably brief in its discussion, and among several I have consulted lately simply the present theories were advanced; while no author offers an opinion for himself. Tubercular degeneration of the capsule is seemingly the most constant pathological condition; atrophy, fatty degeneration, cancer, interstitial inflammation, or in fact any disease that interferes with the functional activity of the gland, may be

followed by symptoms of this disease. Numerous cases have been reported, however, with complete destruction of the adrenals not followed by disease, but with the general debility and feebleness of heart action.

The theories that are the most plausible are:

a. That in destruction of the gland a secretion is diminished, or entirely checked, which is essential to tissue metabolism.

b. That the blood is gradually poisoned by the retention of some material, the destruction or alteration of which is the function of the capsule.

c. That it is an involvement of the abdominal sympathetic, either primary or secondary to disease of the adrenal.

The disease is characterized by distressing languor and very general prostration, remarkable feebleness of heart action, irritability of the stomach, and a singular alteration in the hue of the skin. The pigmentation and asthenia are the first symptoms which usually attract attention; their onset is gradual, but sufficient to cause the patient to seek advice. The diagnosis at this time is attended with some difficulty, since many other conditions are accompanied with pigmentation; and even the discoloration in this disease is not of a constant character, ranging from a light amber to a dark brown, or even black. It may be diffused, as in typical cases, or it may occur in patches, but always deeper and darker on the exposed surfaces and in the regions where normal pigmentation is most intense, as the navel, genitals and axilla. It is also found upon the mucous membranes, and was generally considered diagnostic of this disease, but it seems to be found under other conditions. It sometimes occurs as a mere accident, without obvious cause; or it may be associated with chronic gastric disease, such as carcinoma. When pigmentation is present together with pale bluish nails, a foul odor to the body and breath, asthenia, feeble circulation, anorexia, nausea, vomiting, diarrhœa, and a peculiar dingy, smoky appearance of the scrotum and penis, we have a clinical picture that could hardly be mistaken.

The disorder is a chronic one, and as might be inferred from its pathology, almost invariably destroys life; yet cases have been reported in which most of the symptoms were present and

the patient nevertheless recovered. Death may take place gradually from the constantly advancing asthenia, or it may occur suddenly, even when the prostration does not warrant it. The duration is usually from eighteen months to several years.

The treatment is principally symptomatic, aiming to restore the condition of the blood; iron should be given, to which arsenic and strychnia may be added. If very weak, the patient should be kept in bed and given nutritious and assimilable food. Oxygen may be administered, together with some preparation of the supra-renal gland—either the tincture, glycerine extract or the raw gland in sandwiches. Great benefit has been reported from the injection of the adrenal, but its value is as yet still doubtful.

GENERAL REMARKS ON THE PATHOLOGY OF ATHEROMA.*

BY WM. H. WITT, M.A., M.D.,
Demonstrator of Anatomy and Lecturer on Regional Anatomy in Medical Department of Vanderbilt University.

Atheroma and arterio-sclerosis are terms used to express the pathological conditions of the arteries in the great majority of the instances in which they are involved. They are frequently referred to as being synonomous in meaning, though this is not true. The best recent pathologists regard them as different in many respects, though they have many points of similarity in the matter of occurrence, etiology, symptomatology, etc. While atheroma may be quite general and involve a large number of the arteries of the body, its essential feature is a local degeneration in the vessel wall. If we examine an atheromatous aorta we shall note on its inner surface a greater or less number of small yellowish-white masses. On palpation their surface will probably be smooth, showing that they are still covered with endothelium. The white sclerotic nodule is one of the earliest

* Delivered at regular meeting of Nashville Academy of Medicine, June 15, 1899.

products of retrograde change. Its blood supply is poor, and it has a tendency to undergo softening—necrosis. As the necrosis advances the sclerotic tissue gives place to a grumous, pultaceous mass. If now the endothelial lining gives way, the soft mass exudes slowly into the lumen of the vessel. The escape may be rapid enough for the escaping mass to form an embolism, but this is unusual. After this discharge there is left in the wall of the artery an excavation—the atheromatous ulcer. Such an ulcer is frequently the site of thrombosis, especially if the vessel is small, which may entirely close it. Another change very commonly found is that of calcification. In this condition we find chalky deposits in the vessel wall, which aggregate to substitute the native muscular and elastic tissue, converting the artery into a hard, inelastic tube that can be easily palpated when it is superficial. This calcareous deposit is usually not uniform, and the vessel feels not unlike a string of beads. Calcification is found mostly in the middle coat. Amyloid and fatty changes also occur.

Observers differ in regard to the location of the first lesions of atheroma, whether the inner, outer or middle coat is the first to be involved. The theory that the vasa vasorum show the first changes is now accepted by most pathologists. Sansom, in the Twentieth Century Practice, quotes Martin as follows: "If we examine attentively the minute arteries which penetrate the external coat of the arteries and course in all directions in the normal fibrous tissue, we find them all healthy save those which correspond to the atheromatous area. The artery nutrient to this area shows signs of proliferative endarteritis that almost obliterates its lumen, so that it renders circulation within the area all but impossible. This is a lesion never absent, but often difficult to demonstrate." These vasa vasorum do not penetrate the inner coat, and in the outer coat they anastomose freely; so it is in the middle coat that the first signs of failing nutrition appear.

Arterio-sclerosis (arterio-capillary fibrosis) is a process somewhat different from atheroma; the usual text-books in use fail in many instances to make the points of distinction clear. It involves arterial changes of a more general character, and has a preference for the vessels of small calibre, especially those of

the meninges, heart and kidney. The pathology consists principally of an overgrowth of connective tissue in the outer, middle, and deep layers of the inner coats, which substitutes the muscular and elastic tissue of these areas. By this overgrowth the vessel wall is largely robbed of its elastic and contractile power, and the lumen is narrowed—all combining to increase the peripheral resistance to the blood current and increase the work of the heart. Sansom teaches that the process may begin in the internal coat or external coat, or it may begin in the tissues adjacent to the vessels and by extension attack them. Arterio-sclerosis, like atheroma, is the result of irritation from poisonous material floating in the blood current, but is not marked by the degenerated areas that form so important a feature of atheroma. The two may be, and frequently are, associated; but they have no causal relation toward each other. Arterio-sclerosis is rather the expression of a general condition, a fibroid diathesis as it were, which may show itself elsewhere than in the vessel walls, as in the liver and kidneys. Atheroma is more a local change in structure. The former comes on very slowly as a result of long-continued irritation; the latter may develop rather rapidly. Associated with both conditions, but especially with arterio-sclerosis, is a sclerotic condition of the kidneys or other organs. The grouping of sclerotic kidney, cardiac hypertrophy and diseased blood vessels, is one which has long been noted, but we do not fully understand the relations they bear to one another.

Gull and Sutton, in 1872, made an exhaustive study of the inter-relation existing between cirrhotic kidney and arterio-sclerosis. As a result of their investigations they concluded that the two conditions were usually found in the same individual, but not always so; that when they were so found, the kidney lesions seemed to have come on first; that there could be extreme sclerosis of the kidney with no degenerative changes in the heart or blood vesesls.

The pathological changes briefly outlined above effect a marked structural alteration of the arterial wall, and pari passu, seriously impair its function. The structures of an artery from the standpoint of its physiology are its endothelium, its muscular and its elastic coat. The first furnishes a perfectly smooth surface over which the blood may pass, and probably has in addition the properties of osmosis and absorption.

The muscular coat, by vasomotor influence, largely controls the peripheral and visceral circulation.

The elastic coat is found best developed in the aorta and other large vessels. Its power of retraction is a great factor in propelling the blood current through the smaller vessels, and its ready distension under the influence of the ventricular systole relieves the vessel of a great deal of strain it would otherwise have to encounter. It is easy to see how the substitution of these structures with pathological tissue such as I have described would seriously impair the function of the vessel. The softening and thickening of the inner coat may be so extreme as to partly or completely close the lumen, thus partly or completely shutting off the blood supply from the area the vessel supplies. The diseased intima may be the nucleus of a thrombus, which may itself close the vessel; or may be the source of an embolus. The loss of muscular tissue impairs the contractile function, but it is in the loss of elasticity that the artery exhibits its weakest point.

The important effect of disease of the vessel wall—especially the inner coat—is, as already intimated, the obliteration of the arterial channel; and with this obliteration comes starvation of tissue. If the starvation is gradual, there is a tendency in many structures for a low grade of tissue change to take place, characterized by an overgrowth of connective tissue. This is well seen in the heart and kidneys. If the starvation of tissue ensues rapidly, there is death; a gangrene if the part be exposed to the atmosphere, a necrosis if it be a portion of an internal organ, as the brain.

On the heart the effects are largely due to two conditions—the increased peripheral resistance and disease of the coronary vessels. The increased resistance throws greater work on the left side of the heart, and in its struggle to propel the blood through the less pervious channels it undergoes hypertrophy. If the coronary vessels are involved, the nutrition of the heart suffers, and a degeneration is prone to occur in its walls. A hypertrophied heart may do its work satisfactorily for a long time if the coronary arteries are in good condition, but when they are not, dilatation of the left ventricle is to be expected, with signs of heart failure.

The strong impulse of a hypertrophied ventricle upon the degenerated wall of the aorta deprived of its power of expansion and recoil, is likely to produce a permanent dilatation — an aneurism.

The extent of arterial disease in different individuals varies considerably. Arterio-sclerosis, when at all advanced, is apt to be found quite widely distributed, involving nearly all the small and medium-sized vessels and many of the larger ones as well. Atheroma of the most advanced type may be quite limited in extent. The aorta, coronary arteries, radial, splenic, brachial, temporal, and those of the brain, are the ones that most uniformly present evidences of degeneration. Many individuals in life present evidences of marked atheroma in the superficial vessels, but on autopsy the aorta and other internal vessels are found in good condition. On the other hand, some patients die of the accidents of arterial disease, as cerebral hemorrhage, that have presented no evidence of atheroma in life.

The symptoms of a general involvement of the arteries may be many or few, and frequently are no index of the gravity of the case. Unless the cerebral or coronary vessels are diseased, the symptoms are likely to be of so mild a character as to attract little notice; and even these are occasionally seriously affected without producing distinctive symptoms. If the radial, temporal, or other superficial vessels are involved, the diagnosis of the general condition is usually easy. The radial, for instance, will be found hard, resistant, incompressible, and in many cases flexuous. If the degree of sclerosis is mild, the diagnosis by such palpation may be impossible. A thorough chest examination in these cases will usually bring out the important signs—accentuated second sound and cardiac hypertrophy, both due to increased resistance in the arterial system. If, however, dilatation of the heart has occurred, the sounds will be less distinct and there will probably be some irregularity in its beats. Such cases will also complain of shortness of breath on slight exertion. Cardiac pain, with precordial distress is noted in nearly all advanced cases. The pain has its most intense expression in angina pectoris, a condition always distressing and that may prove fatal. These symptoms in the old are nearly always the result, direct or remote, of arterial disease, and not of affections of the

valves. The roughening of the intima of the aorta and aortic valves may give rise to a rough systolic murmur heard in the aortic region. Incompetence with regurgitation may occur. About 50 per cent. of the cases of aortic regurgitation arise from atheroma.

Senile gangrene is another condition that may arise from diseased blood vessels, and points at once to a general involvement. Cyanosis and coldness of the surface are often seen.

The results of any examination of the urine suggesting cirrhotic kidneys, should lead to an examination of the arteries and symptoms of sclerosis. In old people we frequently see a failure of nutrition that cannot be ascribed to the failure of any organ in particular. The blood vessels in such cases will be usually found at fault.

The factors that are recognized as operating to produce atheroma and arterio-sclerosis are age, syphilis, alcoholism and high living, rheumatism, gout and muscular exertion. Males are more often affected than females for the reason that they are more exposed to the causes. We might also add heredity as a predisposing factor, for it cannot be doubted that certain families are quite constantly affected with sclerosis of the arteries.

There is scarcely any limit of age at which we fail to find degenerative changes in the arterial wall. In some individuals and in some families the degeneration sets in much earlier than in others. One man is as old at 45 as another is at 65. In the great majority of cases we see the patient is well past middle life, but not a few instances have been noted in children—one as young as 6 years. If syphilis is present the process shows itself at an earlier age than if only some of the other causes obtain. Simple age, without the aid of any of the other factors mentioned, is quite sufficient to effect the pathological changes. The arteries of practically all people over 70 years of age will be found to have undergone degenerative change. Even the vessels of old animals show a like pathology. Demange says that in 500 consecutive autopsies on old people, atheroma was found in every one.

The effect of alcohol is marked, and is probably secured in several ways. When taken in excess alcohol is itself a poison to the blood and directly impairs the nutrition of any

tissue it comes in contact with. Again, alcohol acts with peculiarly deleterious effect on the liver and kidneys, the chief eliminative organs in the body. Elimination is gradually impaired and poisons that should have been disposed of continue to circulate in the blood current. They operate to affect the vasa vasorum, leading to atheroma of localized areas, and by their irritant qualities cause an overgrowth of connective tissue in the smaller vessel walls. It is fair to state that a few writers refuse to agree that alcohol has any such influence. Over-eating and high living generally are believed to have some effect in inducing atheroma and arterio-sclerosis.

Syphilis has long been recognized as one of the chief factors in producing atheroma. Neglected and badly treated cases show a strong tendency to attack the aorta and the cerebral arteries. "Davidson in autopsies on 114 soldiers found atheroma in 22, 17 of whom had had syphilis. In 78 autopsies on soldiers who had not had syphilis, he found atheroma in only four." Aneurism is often produced, and has also been found frequently in persons under 30. We have come to look upon all cases of premature atheroma as in all likelihood due to syphilis. In the brain the process is frequently one of thrombosis.

Rheumatism and gout, especially in their chronic condition, are very commonly associated with atheroma. In 208 autopsies on such subjects, atheroma was found in 38 per cent. It has been suggested that atheroma may not in any way result from rheumatism and gout, but that they are all due to a common cause.

The acute infectious diseaes have been credited with causing atheroma, and it is probably on such a basis that we can best account for its occurrence in early life.

Hard work, by its muscular tension, acts to increase the peripheral resistance and thus throw a greater volume of work on the heart and great vessels. It produces in consequence aneurism and cardiac hypertrophy. It is probably the combination of alcohol, syphilis and muscular strain that secures for us the great majority of serious cases of atheroma. These causes frequently obtain in the same individual, especially in the lower classes. In those in better circumstances alcohol and high living, with age and heredity, are sufficient to produce many cases.

But, as already said, in many instances none of these objectionable features can be discovered, and we attribute the condition to age and the undoubted influence of heredity.

Disease of the arteries of the brain has a unique interest because of the various and important functions of that organ that may be slowly or suddenly interfered with, and because of the difficulty in many cases of making an exact diagnosis. Any of the vessels of the brain may be involved, but the ones usually found diseased are the basilar, circle of Willis, and the middle cerebral. The changes that occur here are for the most part the same as those that occur elsewhere. We have localized degenerations and aneurisms of the usual type, which are especially prone to form on the larger arteries at the base of the brain. We also have obliterating endarteritis and thrombosis, just as in the systemic vessels. The distinguishing feature of arterial pathology in the brain is the formation of miliary aneurisms. These are small saccular dilatations, $\frac{1}{20}$-inch or less in diameter, and communicating with the lumen of the vessel. Their walls are thin and consist of only the outer and inner coats, the middle having disappeared. The etiology of these aneurisms is in some doubt. Sansom (Twentieth Century) says they have no necessary connection with atheroma and may exist entirely independent of it. He asserts that there is a distinct relation of consequence between chronic Bright's disease and miliary aneurisms of the brain. Gowers says: "It cannot be doubted that Bright's disease is a cause of miliary aneurisms in persons beyond middle age, and sometimes in those younger." Miliary aneurisms are said by Charcot and Bouchard to be the universal preliminary to cerebral hemorrhage. This has been called in question by some later authorities. The aneurisms themselves produce no symptoms. When they are present, however, there are usually symptoms of disturbed cerebral circulation, probably due to other causes.

Of all the usual causes of atheroma and arterio-sclerosis, syphilis shows the most marked preference for the arteries of the brain, and the lesions it produces are said by Sansom to be somewhat different from what we see in the old and gouty. The nodular thickenings formed are more localized and are rarely calcareous. Dr. Sutton teaches that they are genuine syphilitic

lesions, and only superficially resemble those of ordinary atheroma. The process may begin as a periarteritis or as an endarteritis. In either case the intima frequently becomes the seat of a thrombosis, which may be sufficient to close the lumen of the vessel and thus cut off the blood supply from a portion of brain tissue. Thrombosis, however, is not the only accident produced. The vessel wall may be so weak as to permit rupture and hemorrhage, or an ordinary aneurism may develop. Such an aneurism produces the symtoms of tumor of the brain. They very frequently burst. Embolism of the cerebral arteries may or may not have anything to do with arterial disease—usually does not.

The symptoms produced by changes in the cerebral arteries, apart from the severer accidents, are numerous, and all point to a defect in nutrition of brain tissue, with consequent alteration of function. First, there may appear a decided impairment of mentality, the patient exhibiting the characteristic evidences of senility, or softening of the brain as it is usually called. He is weak-minded, childish, irritable and forgetful. Dizziness, headache and insomnia occur, and are valuable symptoms. Fainting spells, temporary paralysis—especially aphasia—and even focal epilepsy, occur. If none of the severer accidents, as thrombosis, or hemorrhage, take place, the patient gradually loses muscular and mental power and becomes a complete wreck. When thrombosis of a vessel occurs, the area supplied slowly or suddenly loses its blood supply. As the arteries of the brain tissue proper are for the most part terminal vessels, the tissues are starved. Necrosis follows, with rapid softening. The symptoms produced by thrombosis may be severe in case a large and important area becomes necrotic; but frequently there are few symptoms. Areas of softening are sometimes red, or yellow, or white. They are all the same, except as to the amount of blood pigment contained in the necrotic area. If no collateral circulation can be established in two days, the necrosis is too far advanced for restoration of function. The function lost or impaired depends entirely on the location of the necrotic area, or the hemorrhage if the case be one of that character. Speech, sight, hearing, motion, sensation, or the psychical functions, may be involved. While any of the vessels of the brain may be involved in the hemorrhage or thrombosis, it has been known for

many years the one most frequently affected is a branch of the middle cerebral—the lenticulo striate artery. This is the vessel that supplies the motor and speech centres of the cortex and also the white conducting fibres that pass to the cord by way of the internal capsule. So that among the symptoms of cerebral hemorrhage or softening we must give first place to loss of speech and more or less extensive paralysis of the opposite side of the body.

Abstracts.

XEROFORM IN ARMY SURGERY.*

BY EMILIO P. NOGUERA, M.D.,
Surgeon-in-Chief of the Spanish Army Sanitary Corps, Chief of the Surgical Clinic at the Army Hospital at Jiminez, Cuba.

During the Cuban war I had the opportunity to employ Xeroform in a great number of wounds, occasioned both by bullet and by steel.

Bullet wounds, first cleansed by means of abundant irrigations with a 1.1000 sublimate solution, taking care to reach all their recesses and sinuosities. Then I applied a thin layer of powdered Xeroform at the points of entrance and exit of the projectile, and covered both with sublimate gauze and carbolized cotton. The dressing was only changed after it had become saturated with discharge. I obtained cicatrization in the shortest possible time, and without suppuration.

I irrigated sword wounds in a similar manner, sutured them, covered the incision with a layer of Xeroform, and applied a bandage. In this way I obtained cicatrization by first intention in every case, and without the appearance of any accident or complication. The time required for the process varied between one and three weeks, in accordance with the size and the depth of the wound. This is an extraordinarily short time for the climate of Cuba.

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*Abstracted from *Revista de Medicina y Chiurgia Practicas*, Madrid, April 25, 1899.

For contused wounds, with loss of substance, in which approximation and suturing of the margins was impossible, the time required for healing under the Xeroform dressing was longer (36 days). But the lesions remained dry and aseptic after the first dressing; they became covered with healthy granulations in a very short time; and I never noticed a single drop of pus or the slightest irregularity in the process during the entire time of observation. Soft, spongy, moist and exuberant granulations never occurred under the Xeroform dressing; it is notorious that they often happen with iodoform dressing, and have to be removed in the usual manner.

Xeroform did me very valuable service when large numbers of wounded had accumulated, since it dried up the moisture secreted from the exposed surfaces, and sterilized them. I could thus delay treatment, when unavoidable, for from three days to a week without fear of secondary infection of the traumatic lesions.

I had no occasion to use Xeroform upon the battle field itself; but I made careful observations in the hospital to determine whether the drug really fulfilled all the indications for a dry dressing, which is the easiest and most practical treatment at the front. I selected three cases of gun-shot wound in which there was no damage of important organs, and which had just been brought into the hospital. I cleansed and dried the accessible portions of the wounds with pledgets of cotton, dusted Xeroform upon them, and covered them with cotton tampons impregnated with Xeroform, wrapped in gauze, and again powdered with the drug. The tampons were kept in place by a dressing of carbolized cotton and sublimate gauze, which in one case was allowed to remain in situ for two and in the others for three days. *I had the satisfaction to find all the wounds entirely aseptic when the dressings were removed. This is practical proof of the fact that this simple Xeroform dry dressing can be employed upon the battle field itself to keep wounds aseptic for from two to three days; a length of time more than sufficient for the removal of the patients to the hospitals.*

Finally, I can testify that I never saw any symptoms of intoxication of the general system, or any local changes that wer due to the employment of the Xeroform.

My observations entitle me to draw the following conclusions:

1. Xeroform is a powerful antiseptic for wounds, and is capable of being of the very greatest service in military surgery.

2. It absorbs the secretions from the bleeding surfaces, sterilizes them, and renders the wounds absolutely dry and free from the germs that are capable of causing secondary infections.

3. Since the very simple dry Xeroform treatment above detailed maintains wounds aseptic for 48 hours and longer, it is absolutely irreplaceable for first treatment on the battle field and during the accumulation of patients in emergencies in hospitals deficiently supplied with personnel. For it permits postponement of the treatment without danger to the patient.

4. In wounds accompanied by of loss tissue it favors cicatrization by the small, firm, and regular granulations that it promotes, and it never causes the appearance of the soft, spongy granulations that so often follow the employment of other antiseptics, more especially iodoform.

Selections.

A Case of Puerperal Fever Treated with Unguentum Crede.—In the *Deutsche Medicinische Wochenschrift* of March 9, 1899, Dr. Peters of Eystrup, Hanover, records a case in which the ointment was employed with excellent effect. The patient was a septipara, 33 years old. During the confinement a manual separation of the incarcerated placenta had to be undertaken, occasioning great hemorrhage and a very dangerous collapse, lasting for several hours. Thirty-six hours thereafter there was a temperature of 40.5° C. (104.9° F.), with violent headache and anorexia. There were no local symptoms. On the next day her symptoms were the same, and her fever continued.

On Nov. 8, 1898, the lochia had become very foul smelling, the temperature was 39.4° C. (102.9° F.). An inunction of 3 grams (45 grains) of Unguentum Crede was given. In the afternoon her temperature was 39.2° C. (102.5° F.). In the morning it had fallen to 38.6° C. (101.5° F.), and another inunc-

tion of similar amount was administered; in the afternoon her temperature was 38.2° C. (100.8° F.). From the 10th to the 15th her temperature varied between 38.6° C. (101.5° F.) and 37.2° C. (99° F.). From the 15th to the 18th there was a gradual rise to 39.7° C. (103.5° F.), occasioned by a phlegmasia alba dolens of the left leg, which was treated locally with wet compresses (Priessnitz), and disappeared without abscess formation. A third similar inunction was given, and the temperature fell by the 19th to 38.5° C. (101.3° F.). Another inunction was given on the 19th; but the temperature rose again on that afternoon and the next day, and on the afternoon of the 21st it was 39.4° C. (102.9° F.) again. A fifth inunction was then given, and the temperature fell to 37.8° C. (100° F.) on the morning of the 23d. A sixth inunction was then administered.

A similar inflammation of the right leg was cured during December 2 to 5, by similar treatment, three further inunctions being given. The patient has now entirely recovered. It is worthy of remark that the prognosis was rendered worse by the acute anemia and chronic bronchial catarrh from which the patient suffered, and by the bad nutrition of the patient, who lived in very poor surroundings.

A quicker cure might probably have been obtained by a more prompt and energetic employment of the salve; but on the one hand it was difficult to obtain it here, and on the other argyrosis was feared. No sign of the latter occurred, however, although 27 grams (6 drachms) of the salve was inuncted.

It was interesting to note the very visible influence of the inunctions upon the subjective condition of the patient. Always mentally dull, she was apathetic, ill-tempered, monosyllabic, and hardly opened her eyes. On the day following the inunction she always greeted the physician with a smile when he came in, even if the fever continued. No other antipyretic or antiseptic measures were employed.—*Practical Medicine.*

PREVENTION OF HAY FEVER.—In the January 21st, 1899, number of *The Journal of the American Medical Association*, Dr. Alexander Rixa of New York contributed a very interest ing article on "Prevention of Hay Fever." After a highly interesting historical review, and a brief survey of the results achieved in the past few years, the writer resumes the results of his own investigations.

His ingenious researches for a number of years, regarding the etiology of hay fever, lead him to admit that the pollen of the Roman wormwood, ragweed (ambrosia artimisæfolia) is the primitive and active cause of this peculiar disease. By inhaling this pollen he produced the symptoms of genuine hay fever. He writes as follows:

From the time I found the pollen to be the exciting cause of the disease, I concluded in a logical way upon the proper treatment. I conceived the idea of rendering the receptacle aseptic by preparing the soil for the reception of the pollen. Naturally, they will find no proper soil for a possible generation, propagation or development, destroying their existence in embryo, so to speak, and with it the real cause of hay fever. For this purpose I decided on the following treatment:

About two weeks before the onset of the disease I commence to irrigate or sterilize the nasal cavity and the post-nasal cavity and the post-nasal space with a harmless antiseptic solution, using the douche and atomizer. After giving a great number of antiseptics a fair trial, I decided on hydrozone as the most innocuous and most powerful germicide. Hydrozone is a 30-volume aqueous solution of peroxide of hydrogen. At the beginning I use it for irrigation diluted in the proportion of one ounce of hydrozone to twelve ounces of sterilized water. Nearing the period of the expected onset of the disease, I increase the dose to two or three ounces of hydrozone to twelve ounces of the sterilized water, according to the severity of the disease, using the douche, either tepid or cold, four times a day—morning, noon, evening, and at bedtime—while during the intervals I use the atomizer, with a solution of hydrozone and pure glycerin, or sterilized water, one to three, thus keeping the nares perfectly aseptic during the entire period, and preventing the outbreak of the disease in consequence thereof.

In most obstinate cases, when there is still some irritation the nasal cavity, I give as an adjuvant the following prescription:

℞ Acid boracic.....gr. xx
Menthol.....gr. iv
Glyco-thymolin.....ʒ ij
Sol. eucain B. 4 per cent., q. s. ad.....ʒ ij
Sig. Use in atomizer.

As a rule this treatment was sufficient to avert the disease and keep the patient in perfect comfort.

THE EARLY DIAGNOSIS OF EPITHELIOMA OF THE PENIS.—Mr. Jonathan Hutchison, F.R.C.S. (*Lancet*, April 22d), in a clinical lecture recently delivered at the London Hospital, said: "When cancer of the penis is left to itself it kills either by hemorrhage or by infection of lymphatic glands in the groin. The all-important point is to recognize the cases before the lymphatic glands have become adherent to the vessels, and not to mistake them for cases of primary chancres or tertiary growths. A careful microscopic examination of the discharge ought to settle this point, and if any doubt still remains, then you should slit up the prepuce. If you carefully do these things it may make a difference of many years of life to your patient.—*N. Y. Med. Jour.*

OIL OF WINTERGREEN FOR CHOREA.—Fornaca reports seven cases all rapidly cured with the oil of gaultheria procumbens, administered per os or by absorbtion through the skin. "It deserves a place beside sodium salicylate in the treatment of chorea with or without rheumatic complications, and can substitute it when the latter is not tolerated." —*Gazette degli Osp.*

Editorial.

AMERICAN MEDICAL ASSOCIATION.

The fiftieth annual meeting was held in Columbus, O., June 6-9, ult., with the second largest attendance in the history of the organization. Over 1,700 members were registered, to which may be added a larger number than usual of non-registered attendance. The central location of Ohio's capital, geographically as well as with reference to population, its accessibility by numerous competing railroad lines, the lowest rates ever offered, as well as the growing interest in the Association, each had its share in developing a most satisfactory meeting in regard to numbers; and the high order of scientific work, both in general sessions and in the sections, the excellent and enjoyable character of the social features, left but little to be desired on the part of the most sanguine and devoted adherents and friends of the representative organization of the regular medical profession in America.

The meeting was called to order in the Grand Opera House at 10 a. m. on Tuesday, June 6, by the venerable but ever-young Dr. Starling Loving, chairman of the Committee of Arrangements, and after prayer by Rev. Washington Gladden, addresses of welcome were delivered by Governor Asa S. Bushnell and Hon. Samuel J. Swartz, Mayor of Columbus, which were folowed by the annual address of the President, Dr. Joseph M. Matthews of Louisville, in which he first considered "Our National Body: Its Purposes and Destiny." He said he imagined that when the father of this Association called around him a few devoted friends, accomplished physicians and surgeons, and effected an organization to be known as the American Medical Association, their first thought was the unification of the profession which they loved so dearly. Sacrifices and great personal discomfort were endured by them to obtain the good, but the splendid results were evidenced in the assembled body. Some must be teachers or instructors, others listeners; they each in their way contributed their mite. It might be that some member from a far-off and sparsely-settled country had heard some truth that in its application might save a life, or in return he could give an experience which might prove of incalculable benefit to his more fortunate brother. This possibility should rule out class legislation. In lieu of this he urged that the profession should receive all who represented honesty, fair dealing, and who entertained an earnest desire to elevate the standard of the medical profession and of the Association.

Other features of the address were Washington as the proper home for the Association, the Association journal, in which appropriate men-

tion was made of the late editor, Dr. John B. Hamilton, and worthy commendation of his successor, Dr. George H. Simmons; tuberculosis, compulsory vaccination, and the prevention of syphilis were ably discussed, and the combination of the office of Secretary with the editorship of the *Journal* was advocated.

In conclusion he said: "Let me beg of you that this meeting be one of perfect harmony and peace. Let nothing of an acrimonious nature be indulged in, but rather let your deliberations be characterized by patience, love for each other, and a desire to ennoble the profession to which you belong. For are we not brothers indeed, fighting for a common cause—the obliteration of the common enemy, disease? May your future life, each and all of you, be one of peace and perfect happiness; and may God grant to all a long life filled with good deeds. If fate should decree that any one of you should pass away before we meet again, may you find eternal rest in 'God's next country.' "

The committee on the Rush monument fund reported through its chairman a total fund on hand of $10,082.52. In concluding the report, Dr. A. L. Gihon, who had been the efficient chairman of the committee for fifteen years, much to the regret of all tendered his resignation, which at a subsequent time was accepted.

Dr. H. P. Newman, Treasurer of the Association, submitted his report, showing a cash balance on hand at the end of the fiscal year, Dec. 31, 1898, of $21,729.95.

The general addresses, in medicine by Dr. J. C. Wilson of Philadelphia, whose subject was "A Century of Medicine in America;" in State medicine by Dr. D. R. Brower of Chicago on "The Medical Aspects of Crime," were ably delivered and well received (they appeared in the Association *Journal* of June 10), and the one of like high character by Dr. Floyd W. McRae of Atlanta on "Certain Points in the Surgery of the Alimentary Canal," in the succeeding week's issue. They will all take rank with any of the publications of the Association.

A resolution from the Philadelphia County Medical Society, in regard to the organization of a National Department of Public Health with a Cabinet Minister at its head, being endorsed by the Executive Committee, was adopted.

The following, also from the Philadelphia County Medical Society, was adopted:

"WHEREAS, The morbidity and mortality statistics of the late war served to call to the attention of physicians of the United States the weighty and enlarging problem of the care of soldiers and sailors in peace and during campaigns, under widely varying conditions of climate and environment, now and in many respects presenting themselves for the first time; therefore, be it

"*Resolved* and recommended by the American Medical Association.

"1. That the medical corps of the army and navy be enlarged to meet properly all demands that may be made upon them.

2. That transportation of medical supplies be under the control of the medical department.

3. That a corps of sanitary inspectors be created, whose duty it shall be to examine into the sanitary condition of camps and bodies of troops in transit, and advise in relation thereto.

4. That the government establish permanent camp sites, the selection of the subject to the Surgeon-General, for use in the mobilization of large masses of troops.

5. That a Professor of Military Hygiene be appointed at West Point to instruct the cadets in the principles of sanitation.

6. That the medical officers of the National Guard be subjected to rigid examination, both for admission to the service and for promotion.

7. That the Surgeon-General of the army and navy in time of peace and war be empowered to call into requisition the services of skilled specialists.

8. That the President of the United States be respectfully urged to recommend to Congress the appointment of an Army Medical Commission, to be composed of physicians and sanitarians to be taken from civil and military life, including the Surgeon-General of the army and navy, whose duty it shall be to prepare a report containing a detailed plan of a modern system to govern the medical department of the army and navy in peace and war. Be it furthermore

"*Resolved*, That a committee be appointed by the President of the American Medical Association to wait upon and present these resolutions to the President of the United States for his favorable consideration."

The resolution offered by the Medical Association of Georgia, in regard to raising the rank of the Surgeon-General of the army to that of a major-general, was recommended for adoption, and on motion was adopted.

The bill to provide for the employment of women nurses in military hospitals of the army, presented by Dr. Gould, was approved by the Executive Committee. Dr. Gould appeared before the committee and explained its features, and said that it had been endorsed by all the leading physicians and nurses and others, and the committee recommended that the Association endorse the plan. On motion the recommendation was adopted.

The communications from Tennessee, Louisiana, Alabama and Texas medical associations, in regard to the action taken by the Association last year on the motion of Dr. Dudley S. Reynolds of Louisville, in regard to the limitation of membership to those who conformed to the requirements of the Association of the American Medical Colleges, were fully considered by the Executive Committee in connection with the resolution referred to. Dr. Reynolds and Dr. Savage, by invitation, appeared before the committee and explained the position of their associations. After free discussion by the committee, it was decided that in the opinion of the committee the action taken last year was unconstitutional, and there-

fore ineffective, and the entire matter was referred to the Judicial Council for opinion and decision. On motion, the report was so referred by the Association.

Last year the Section on Materia Medica, Pharmacy and Therapeutics introduced a resolution, which was referred to the Executive Committee and not reported on. The committee placed the matter in the hands of a sub-committee to investigate the matter during the year and to report at this meeting. The committee now report that they endorse the preamble and resolution, and recommend that a copy of the report be sent to the Decennial Pharmacopeial Convention for 1900. On motion the recommendation of the committee was adopted.

The Board of Trustees, through its Secretary, Dr. T. J. Happel of Tennessee, presented the following report for the year ending Dec. 31, 1898:

RECEIPTS.

Jan. 1, 1898. Cash in *Journal* office	$ 1,494.90
Jan. 1, 1898. In hands of Treasurer	14,092.85
Subscription and membership fees	39,771.20
Advertising	23,629.71
Sales	3,162.91
Interest	179.85
	$82,331.42

EXPENSES—JOURNAL.

Paper	$11,933.13
Labor	16,764.66
Salaries	8,265.06
Editorial	5,378.31
Postage	4,284.31
Commissions	1,569.94
Rent	1,500.00
Miscellaneous expenses	1,212.72
Clippings	210.87
Hauling	202.55
Electric power	428.10
Telephone	175.00
Electrotypes	582.82
Petty cash expenses	303.09
Stationery	81.83
Gas	87.76
Copyrights	25.50
Oil and benzine	30.70
Ink	834.54
Reporting	686.87
Type	487.60
Grinding	28.00
Bindery supplies	96.10

[illegible]	32.72
[illegible]	17.50
[illegible]	23.65
[illegible]	4.30
[illegible]	107.83
[illegible]	126.65
[illegible]	2,700.00
	$58,202.21

EXPENSES—TREASURER.

[illegible] etc.	$ 1,520.29
[illegible] bond	100.00
[illegible] Pub. Health	431.26
[illegible] salary and expenses	484.20
[illegible] expenses	932.00
[illegible] salary	1,000.00
	$ 4,467.75
	$62,669.96
Balance: Cash in *Journal* office $ 931.51; In Treasurer's hands 18,729.95	$19,661.46
	$82,331.42

"Ten thousand dollars of this surplus has been placed in the sinking fund and invested in bonds, making a total of $13,000 thus invested. As will be noticed by the report, a new printing press has been secured during the year, at an expense of $2,700.

"The growth of the *Journal* has gradually increased—thus, the issues for the month of January, 1898, were: January 1, 9,600; January 8, 9,700; January 15, 9,700; January 22, 9,700; January 29, 9,700, but were 13,000 for each week in December, 1898. The weekly average for the year was 11,270.

"For the last three months of the year the management was greatly embarrassed by the sickness and death of the late Dr. John B. Hamilton. Under his personal supervision the *Journal* had increased to nearly three times its original subscription, and had gradually obtained a well-equipped plant and a large reserve fund, but more than all, a recognized position among the reputable journals of the country.

"On Jan. 1, 1899, shortly after the announcement of the death of Dr. Hamilton, a called meeting of the Board of Trustees was held, at which it was resolved to continue the conduct of the *Journal* business under the direction of the resident Trustee, Dr. Truman W. Miller, who had very generously, at the sacrifice of his own interests, assumed the management upon the demise of the editor. At the direction of the Board he had the accounts of the *Journal* office and the Treasurer examined by an expert accountant, who pronounced them correct. At the annual

meeting of the Board, February 17 last, after a careful canvass of the available editorial material, Dr. George H. Simmons of Lincoln, Neb., was chosen editor for one year, at a salary of $5,000, with the stipulation that he should move to Chicago and devote his whole time to the work of the *Journal.* Your Board congratulates itself that the wisdom of its selection of editor has been efficiently demonstrated by the subsequent progress of the *Journal* The changes that have been made render it more valuable to its patrons, and justify the hope of the Board that it shall become the representative medical journal of the world. Other progressive features are under contemplation. A better grade of white paper will be used in the next volume, and the Board has authorized the purchase of two Mergenthaler linotype machines, at an expense of $6,700, which will insure the use of new type for every issue.

"The Board would recommend that Article V of the By-Laws be amended by substituting the words "one year" for the words "three successive years" in second paragraph of section 5, as it is not good business to permit any member to become so indebted to the Association that the payment of his dues will be a burden, nor should we furnish the *Journal* three years for nothing, as we are now obliged to do.

"Now in conclusion, the Board of Trustees would report further upon the resolution of Dr. Bailey of Louisville, Ky., offered last year at Denver, referring to the election of a Grand Secretary for the Association, which resolution was referred to the Trustees, inasmuch as it involved the expenditure of money. We have carefully considered this question from its various standpoints, keeping always in view the interests of the Association, and not of any one individual. We are satisfied that a radical change is needed in the management of the Secretary's office. The fact that there are on hand no written minutes of the various meetings of this Association properly signed by the Secretary, and the adoption of these duly attested by the signature of the President; and the further fact that the only minutes presented for adoption by this Association are in the form of notes, excerpts from newspapers, stenographic reports, read from various scraps of paper in such a form that they cannot be signed by the President, so as to make them valid; and the further fact that, in spite of adverse criticisms, this state of facts has continued for years, the committee has unanimously agreed to report, recommending what we think a proper change in this matter. We offer the following substitute for Dr. Wills' amendment offered last year at Denver, Colo.: Amend Article IV of the Constitution by substitution for paragraphs one and two of said article the following: 'The officers of the Association shall be a President, four Vice-Presidents, a Secretary and an Assistant Secretary, a Treasurer and a Librarian. All of them except the Secretary shall be nominated by a special committee of one from each State represented at the meeting, and shall be elected by vote on a general ticket.'

"'Each officer except the Secretary shall hold office for one year and until his successor is elected. The editor of the *Journal of the American*

Medical Association shall be the Secretary of this Association, and shall serve as such without additional compensation.'

"We further suggest that the word 'permanent,' preceding the word 'Secretary' in other places in said Article IV, or elsewhere in the Constitution or By-Laws, be stricken out.

"We would state that we recommend this action not from any hostile feelings toward our present Secretary, but for the reasons already presented and the following in addition:

"If the editor of the *Journal* is made your Secretary, all the papers of the meetings will go at once into his hands, and he becomes responsible for them. As it is, they may not reach the editor's hands for more than a month, as was evidenced by our Denver meeting.

"The minutes will be written out in proper form each day and presented for adoption by the Association, and then for the signature of the President in the presence of the meeting, so that these minutes may be valid. On the adjournment of each annual meeting the minutes will be kept in the *Journal* office with the other papers of the Assciation. The Secretary having at each meeting his *Journal* stenographer with him, the work of keeping the minutes can be accurately done, at no additional cost to the Association, from the stenographic reports kept for the *Journal*.

"The editor of the *Journal* would then become responsible for the correctness both of the report of the meeting and of the minutes, which correctness of the latter would be duly attested by the signature of the President of this Association. Such an arrangement as this would, in our opinion, prevent any charges of omissions from and inaccuracies of the minutes of our meetings, a thing which has too often occurred heretofore.

"With your Secretary in one city and your editor in another, delays in the transmission of matter often occur, and the editor cannot promptly present the proceedings of the meeting to the readers of the *Journal*. This is evidenced by the fact that the minutes of the Denver meeting are found in the following bers of the *Journal*—June 25, July 9 and July 23, when the proceedings should have been published June 11–18

"This report is respectfully submitted, and we bespeak for it your careful consideration.'

"A. E. GARCELON, *President*,
"E. E. MONTGOMERY,
"H. L. E. JOHNSON,
"CHAS. A. L. REED,
"JOSEPH EASTMAN.
"J. L. PRIESTLEY,
"TRUMAN W. MILLER,
"T. J. HAPPEL,
"I. N. LOVE, *Trustees*."

At the conclusion of the reading of the report Dr. Duncan Eve of Nashville moved its adoption. Seconded.

The Secretary arose and asked whether he could speak to a question of privilege;

The President—Yes, sir, you can.

Secretary W. B. Atkinson—I do not desire in any way to oppose the adoption of this report by a unanimous vote, but I claim the right to place these matters before you in the proper light. There are statements made in the report which are not correct in regard to the conduct of this office, and for that reason I demand that these changes be made, so that I shall be reported correctly. In the first place, I have here the minutes of the meetings of the Association from the time it became a journal printing association. Before that I always supplied the printer with a certified copy, with my name attesting the minutes as they were read and adopted by you. These are all signed, with the exception of the last two. Another thing—I have never failed to present to the stenographer, who has been our stenographer for years, full minutes of the Association, but not in the form of newspaper excerpts, scraps of paper, etc., as mentioned in the report. On the occasion of every meeting I have furnished him him with the minutes, either written out by myself or typewritten under my supervision, signed by myself, and the minutes taken by him on every occasion. If you doubt the correctness of this statement, the stenographer is here and will tell you that I am correct.

"Another point I want you to think of is with reference to the meeting at Denver in regard to the minutes not being promptly printed. When Mr. Whitford and Dr. Hamilton left Denver they took with them the minutes properly certified to by me, with the exception of the report of the Executive Committee. I could not furnish this, because it had been taken away by the secretary of that committee. I have a letter from the secretary of that committee in my pocket, acknowledging that he had taken it away, and saying that he could not furnish it for some little time. The result was that after I had written him twice asking for the report, he sent it to Dr. Hamilton at Chicago, and this accounts for the delay in the printing of the minutes of the Denver meeting. You have my explanation, and I ask that you have the report of the Board of Trustees corrected in accordance therewith."

Dr. T. J. Happel, speaking for the Board of Trustees, said: "Mr. President and members of the Association: I am not here on the floor of my own volition. I am the youngest member of the Board of Trustees. I have seen the least service on the Board, and they thought it was a fine opportunity to break me in. We dislike to be put in the attitude of appearing to prosecute or persecute anyone in connection with this matter. With all due deference to the Secretary, your Board weighed carefully every item of this report which has been presented to you. We do not say in our report that these minutes were not gotten up and put into the hands of the printer in proper form, but we do say that the report was read from scraps of paper, from stenographic reports, from newspaper clippings, at our meeting. I think the facts in the case warrant the assertions made by the Board. If any of you will pick up the *Journal* con-

[illegible] Denver, and occupy your time in [illegible] proceedings of that day fully verify [illegible] the printed proceeding of the [illegible] may be gotten up after the meet- [illegible] your Secretary and presented for [illegible] not constitute the legal minutes of [illegible] your proceedings must be written [illegible] prepared, and then adopted. This [illegible] are worth the paper they are writ- [illegible] by the President of the Association. [illegible] have not taken legal action on any matter [illegible] our Association go. I do not know but what [illegible] minutes somewhere, but they are not in [illegible] minutes of the Denver meeting, and I [illegible] the reports of any other meetings. As [illegible] come into our hands, we have not gone into [illegible]. You will remember that Dr. William [illegible] at the Denver meeting for the appoint- [illegible] at a salary of $3,000 per annum, and as [illegible] expenditure of money, it carried the matter [illegible] trustees of the Association. Had there not been [illegible] involved in that resolution, it would have gone [illegible] Committee. Dr. Bailey's resolution was referred [illegible] to carry it out in its constitutional form, con- [illegible] fered by Dr. Wills to amend the Constitution [illegible] We do not intend to cast any reflection on [illegible], but the Board of Trustees does not want to [illegible] in this matter. We feel it is for the best in- [illegible] Medical Association that this change should be [illegible] with your editor as Secretary, you have somebody [illegible] a salary sufficient to hold responsible for doing [illegible] way. If we are a business body, the work [illegible] a business manner. If you want the business trans- [illegible] the responsibility on somebody's shoulders, and if [illegible] it he can be ousted from his office and some one [illegible] hence the recommendation in our report to make [illegible] *Journal* the Secretary of this body."

[illegible] Pennsylvania—"Inasmuch as we have heard the re- [illegible] and the final reply of the Board of Trustees, I now [illegible] debate be closed and that we vote on the report of the [illegible]

[illegible] President—"There is already a motion before the house to [illegible] report." The President then put the question on the adoption [illegible] which was carried.

[illegible] J. Happel made the following supplementary report on be- [illegible] Board of Trustees.

"The Board of Trustees, in considering the various matters referred to them, would report that they have found much difficulty in finding the proper sections of our Constitution and By-Laws under which to examine them; hence we would recommend that a committee of three be appointed to revise the Constitution and By-Laws of this Association, and to codify and arrange them properly, and when the committee shall have completed its work the editor of the *Journal* print a sufficient number of copies of the same and have them ready for distribution at the next meeting of this Association."

On motion, the report was adopted.

"Your Board of Trustees, to which was referred the resolution of Dr. Tuckerman of Ohio, in relation to the appointment of a committee of three on national legislation, would recommend the adoption of the resolution, and would advise that not exceeding $250 be appropriated for the use of said committee, to be expended on vouchers approved by the local member of the Board of Trustees, who, under a former action of this Association, must be the District of Columbia member of this national legislative committee, with one member from Baltimore and one from Philadelphia."

On motion, the recommendation of the Board of Trustees was concurred in.

Dr. U. O. B. Wingate, Milwaukee, Wis., Chairman of the Committee on Department of Public Health, presented the following report:

"Your committee has only a short report of progress to offer at this meeting. At the last meeting, held in Denver, a somewhat full and lengthy report was submitted in printed form. Since that meeting, as is well known, Congress has held a short session and devoted its time largely to the consideration of matters relating to the late war and our relations to the new possessions. Matters pertaining to national public health legislation have become crystallized, so to speak, into two propositions in the form of two bills—one known as the 'Cafferey-Hepburn bill,' which provides only for extended quarantine powers of the Marine Hospital Service; and the other the 'Spooner bill,' which has been endorsed by this Association at its last two meetings.

"It is unnecessary to refer to the merits of this measure, as they are well known—suffice it to say that since the last meeting much has been added to public sentiment in favor of this bill, and, as stated in the last report, it has been endorsed by the American Public Health Association, the New York Academy of Medicine, the New York Board of Trade and Transportation, the New York Chamber of Commerce, and since the last meeting it has received the endorsement of the New York State Medical Association, which body has appointed a committee, with Dr. Stephen Smith as its chairman, to co-operate with your committee in aiding its passage. It has also received the endorsement of the Conference of State and Provincial Boards of Health of North America, recently convened at Richmond, Va., and it has also been endorsed by many medical societies throughout the country, as well as business or-

[illegible] The committee does not hesitate to state that in its judgment [illegible] before Congress has received the support [illegible] it is entitled.

"The committee is of the opinion that there have been two prominent causes in the delay of the passage of a measure to create a National Bureau of Public Health—the diversity of opinion existing in the profession as to the organization and details of such a measure, the other the lack of information on the part of members of Congress concerning the importance of such legislation; and it is hoped that these two obstructions have been largely overcome, and if the profession will now stand firm, and shoulder to shoulder, in favor of this bill, which has been endorsed by such a large number of the medical and business organizations, individual medical men and sanitarians throughout the country, it is believed that the 'Spooner bill' will become a law during the next Congress.

"At the last meeting of this Association your committee pointed out the need of having some one watch with care the progress of the bill, and that money was needed to carry on this work. Your Chairman signified his willingness to give his time to this service if his actual expenses could be paid. It was recommended that $1,000 be set aside for the use of your committee. That matter was referred to the Board of Trustees, and that body set aside $200 for this purpose. But one visit to Washington was necessary during the last extra session of Congress, and a part of the expenses of that trip was borne by the Wisconsin State Board of Health. There was a small bill for printing, so that about $75 has been expended, hence there is about $125 left for the use of your committee. Your committee would strongly urge that at least $500 in addition be set aside, or so much thereof as may be necessary, for this purpose, as in all probability this will be the last call. Your committee believes that victory is in sight, and with a little more financial aid and the active co-operation of the individual members of the Association, success will crown our efforts before our next meeting.

"If we are not successful it will be the fault of those who fail to co-operate with those who laid the foundation, for with the support of the medical, sanitary and business organizations, as well as the great majority of State Boards of Health and the leading sanitarians of the country such a measure will only be defeated by a lack of harmonious effort in influencing our members of Congress, and the activity of the few who oppose the many. Respectfully submitted,

"U. O. B. WINGATE, M.D., Chairman."

Dr. Bishop of Pennsylvania—"I move that the report of the committee be adopted and the money appropriated as suggested."

Seconded and carried.

The following preamble and resolution were offered:

"WHEREAS, Dr. A. L. Gihon, who for so many years has served with earnest enthusiasm as Chairman of the Rush Monument Committee, has resigned the office; therefore be it

"*Resolved*, That the American Medical Association accepts the resignation with extreme reluctance and regret, and tenders to Dr. Gihon its sincere thanks for the efficient manner in which he has discharged the duty of the onerous office;

"*Resolved*, That this preamble and resolution be spread upon the minutes, and a copy of the same be sent by the Secretary to Dr. Gihon."

On motion, the resolution was unanimously adopted.

Dr. T. J. Happel of Tennessee—I have a resolution which I wish to read, and desire to make a motion to adopt the same. The resolution is as follows:

"*Resolved*, That Dr. Wm. B. Atkinson be appointed to take charge of the registrations at the annual meetings, until otherwise ordered by the Association, and to that end the Committee of Arrangements shall advise with him before the meeting, and he shall go to the place of meeting at least one day in advance to perfect arrangements for registration. For this service he shall receive annually from the Treasurer the sum of $100 and his expenses."

Seconded and unanimously carried.

The Executive Committee reported as follows:

"It has carefully considered the topics mentioned in the President's address, and would advise as follows:

"1. In regard to a permanent location at Washington for the meetings of the Association, your committee recommends that no change from the present plan be adopted."

On motion, this section of the report of the Executive Committee was adopted.

"2. In regard to the clinics and entertainments interfering with the work of the Association, you committee recommends that the Association direct that such be avoided in the future."

On motion, this section was adopted.

"3. In regard to a travelling assistant secretary to visit medical societies and secure membership. your committee advises that the solicitation of subscriptions to the *Journal* should be left to the Trustees as heretofore, and that membership in the Association is better advanced by the efforts of delegates in their own Societies than by a paid commercial agent."

A motion to adopt this section was carried unanimously.

"4. In regard to the editor of the *Journal* acting also as Secretary of the Association, your committee recommends that it is desirable, and that the plan be adopted if the amendment to the Constitution and By-Laws be accepted.

"5. In regard to the recognition of delegates from other bodies than the State societies, that relates to the Constitution and By-Laws, and the committee is not prepared to advise in the matter.

"6. In regard to the memorials to Congress, referring to tuberculosis, your committee offers the following preamble and resolutions:

"'WHEREAS, From carefully prepared statistics it is found that of

the deaths from all causes between the ages of 15 and 60 years, one-third result from tuberculosis, and that one in every fifty persons has this disease; and

"'WHEREAS, Competent authorities claim that under proper treatment from at least one-fifth to one-quarter of those affected by tuberculosis may be cured; and

"'WHEREAS, The European governments are actively engaged in endeavoring to stamp out this disease, while in the United States nothing has as yet been done by us as a nation in this important work; therefore be it

"'*Resolved*, That the President appoint a committee of five with power to add to the number, who shall prepare a report on the nature of tuberculosis, its communicability and prevention, the more effectual manner of preventing the spread of infection and of educating the people in personal hygiene, so as to lessen the chances of their becoming tuberculous and to increase the prospects of their recovery, the advisability of establishing national and State sanitoria, and such other matters as may be pertinent to the subject.

"'*Resolved*, That this committee shall present this report to the Congress of the United States and to the Legislatures of the various States of the Union, and urge upon them that appropriate measures be speedily taken.'"

On motion, this section was adopted.

"7. In regard to the subject of compulsory vaccination, your committee offers the following preamble and resolutions, with recommendation for their adoption:

"'WHEREAS, Before the discovery of vaccination smallpox was one of the most dreaded scourges of the earth, causing in epidemics as much as one-half of all deaths in a year; and

"'WHEREAS, It has been proven by years of experience that smallpox can be stamped out by the efficient use of vaccination; and

"'WHEREAS, When prejudice has prevented its employment in diverse communities for periods of years, these communities have in many instances been almost exterminated by epidemics of smallpox; and

"'WHEREAS, Certain well-meaning but fanatical persons have for some time past been endeavoring to excite a prejudice against vaccination, and may, if they are not checked, succeed in rendering the entire country susceptible to an epidemic of smallpox, such as has visited and laid waste the various isolated communities where vaccination has been abandoned or never adopted; therefore be it

"'*Resolved*, That the American Medical Association most strongly urges the adoption by local Boards of Health of laws requiring compulsory vaccination, and deprecates in the strongest way the efforts of those who are endeavoring to secure the abolition of compulsory vaccination; and

"'*Resolved*, That a copy of this preamble and resolutions be sent to every Health Board in the country.'"

On motion, this section was adopted unanimously by a rising vote.

"8. In regard to the spread of syphilis, the matter was referred to the delegates to the International Congress at Brussels, in September, 1899, which have been appointed by the United States Goveanment on nomination by the President of this Association, the committee to report next year, as suggested in the address."

In connection with this a resolution was offered that the Association requests the United States Government to make some appropriation for the expenses of the delegates, as is common on such occasions.

On motion, this section and the resolution were adopted unanimously.

"9. The resolution offered by the Ohio State Association in regard to the appointment of a permanent Committee on National Legislation, has been fully considered by your committee, and Dr. L. B. Tuckerman and Dr. U. O. B. Wingate appeared before the committee in regard to the same. Your committee recommends the adoption of the resolution, with the proviso that one member of the committee should reside in Washington, the others elsewhere, and that the matter be referred to the Trustees, as there may be some expenditure of money connected with it.

"10. Your committee report that the report of the Secretary was satisfactory, and requires no action.

"11. The Section on Materia Medica sent a resolution to the Executive Committee, which was duly considered and is recommended for adoption by the Association. The resolution is as follows:

"'WHEREAS, The Decennial Convention for the revision of the Pharmacopeia meets in Washington in May, 1900; and

"'WHEREAS, The American Medical Association has the right to send five delegates to the convention; therefore be it

"'*Resolved*, That the Section on Materia Medica, Pharmacy and Therapeutics requests the Association to send delegates to this convention, and suggests the names of Dr. George F. Butler, Dr. Hobart A. Hare, Dr. W. B. Hill, Dr. F. E. Stewart and Dr. R. G. Eccles, to the President of the Association as suitable gentlemen to take care of the interests of the Association in the same.'

"The Executive Committee recommends that the committee be sent to the Revision Convention, and that the names recommended be accepted."

On motion, the recommendation of the Executive Committee was concurred in.

"12. In view of the fact that the last published edition of the Constitution and By-Laws was dated March 28, 1891, and is imperfect, not containing some recent changes and ordinances—as, for instance, the organization of the Executive Committee of the Sections and the General Executive Committee, the election of officers of Sections by the Sections, etc.—and it is impossible to know of many provisions of the same accurately, your committee recommends that the Association directs the Trusees to issue a revised edition at the earliest possible date."

Dr. Bishop of Pennsylvania—"I move that it be adopted, and that in

addition there be printed the Code of Ethics and the interpretations placed upon it by the American Medical Association." The motion was seconded and carried.

"13. Your committee will call attention to the fact that there is no provision on the daily program for the reception of the report of this committee, although the Association ordered last year that this be done and requests that the Association direct the Secretary to have the same inserted in the future as early in the day at each meeting as possible, in order that the matters reported on may be duly considered and acted upon."

Dr. Bishop of Pennsylvania—"I move that it follow the reading of the minutes." Seconded.

The following was offered as an amendment to the motion:

"That there be a general order, after the reading of the minutes, for the reports of committees." The amendment was accepted.

It was suggested that it would hardly be right for the report of the Executive Committee to be placed among the reports of committees in general, since the Executive Committee is constitutionally organised. It was also suggested that the Executive Committee be especially mentioned on the program; and a motion to amend to this effect was made, seconded voted on and carried.

The Secretary read the following, which was offered by Dr. Dudley S. Reynolds of Louisville, Ky.: "Proposition to amend Article II of the Constitution, by adding to the qualifications of membership in those societies eligible to send delegates to this Association. After the words 'Marine Hospital Service of the United States,' at the conclusion of the second paragraph: 'provided, however, that no State, county, or other auxiliary body sending representatives shall receive into its membership any one who may after 1900 have received the degree of Doctor of Medicine on less than four years of graded instruction or an equivalent requirement." [Laid over for one year.]

Dr. Bulkley reported on behalf of the Executive Committee as follows:

"1. The committee of the delegates from the United States to the Congress for the Prevention of Syphilis and the Venereal Diseases, to be held in Brussels, Belgium, in September next, would respectfully suggest to the Association the desirability of taking the necessary action to secure an appropriation from the United States Government to meet the necessary expenses of its delegation to the aforesaid Congress. Your committee feels that this Association will readily appreciate the responsibility involved in properly representing, not only our country, but also this great Association, at the forthcoming Congress, and the imperative necessity of an appropriation which shall comport with the importance of the questions to be considered at the Congress, and with the dignity of the United States, as well as that of this honorable body."

Dr. Bishop of Pennsylvania moved that the Association take such action as is necessary to secure the appropriation mentioned in the report [illegible] Executive Committee. Seconded and carried.

"2. With reference to the appointment of another member of the Committee on Gold Medal, which report is not signed this year because no essay has been presented to the committee of sufficient merit to be awarded the medal, your Executive Committee should have appointed another member of this committee on prize competition in place of the member from San Francisco, whose term of office expired, but through haste your committee failed to do this. Your committee therefore asks to be allowed to appoint that other member."

On motion, the Executive Committee was empowered to select this member of the committee mentioned.

"3. With reference to the time consumed in the work of the Sections, your committee spent considerable time in looking into this matter, having had a sub-committee working on it. There is one suggestion which we desire to spread on the minutes, and one resolution which we want passed. We found no less than 561 papers announced for this meeting in the different sections. We find, after careful inquiry from those who have attended the different Sections, that not one-half of those papers were actually read. The work of many Sections has become so congested that there is not proper time for discussion. Some 83 papers were presented in the Medical Section, 79 in another, and 64 in another. Your Executive Committee wishes to call your attention to the following By-Law: 'It shall be the duty of every member of the Association who proposes to present a paper or report to any one of the Sections, to forward either the paper or a title indicative of its contents and length (not to exceed twenty minutes in reading) to the secretary of said Section at least one month before the annual meeting at which the paper or report is to be read.' Your committee found that the Medical Section gave some admirable extracts of the papers presented to it in the published official program, whereby those attending the Section could come prepared to discuss papers intelligently. The committee considers that if papers are abstracted beforehand and published after the manner mentioned, the members are more likely to discuss them. So your committee offers another substitute, which is simply this:

" '*Resolved*, That no paper shall be placed on record for the consideration of any Section unless an abstract or a precis of not less than 50 nor more than 300 words accompanies the title and is placed in the hands of the chairman or secretary of the Section at least thirty days before the meeting of the Section.'

" Your committee desires further to call the attention of the Association to this work of the Sections in order that more care may be exercised in the selection of papers hereafter, and it was agreed that probably not more than thirty papers should be considered desirable for any one Section of the Association during the meeting. The British Medical Association limits the number of papers to 25 for each Section; it also requires an abstract of the paper sixty days before the time of meeting. Your committee merely suggests this, and does not ask that the thirty-paper limit be adopted. But we ask the adoption of this resolu-

tion, that no papers shall be placed on record for the consideration of any Section unless an abstract of not less than 50 nor more than 300 words accompanies the title, and said abstract is placed in the hands of the chairman or secretary at least thirty days before the meeting. Your committee moves the adoption of this resolution as presented."

On motion, this action was concurred in.

The following amendment to the Code or Ethics was offered by Dr. Q. C. Smith of Austin, Texas:

"To amend Paragraph 9 of Article IV of the Code of Ethics of the American Medical Association, be it

"*Resolved*, That attending physicians are entitled to charge a consultation fee for each consultation, in addition to visit fee, equal in amount to that ordinarily charged in similar cases by consulting physicians residing in the same city, locality or community where the service may be rendered." [To lie over one year.]

The following officers were elected to serve the ensuing year:

President, W. W. Keen, Philadelphia; First Vice-President, Chas. A. Wheaton, St. Paul; Second Vice-President, E. D. Ferguson, Troy, N.Y.; Third Vice-President, J. M. Allen, Liberty, Mo.; Fourth Vice-President, Wm. D. Middleton, Davenport, Iowa; Treasurer, Henry P. Newman, Chicago; Secretary, George H. Simmons, Chicago; Assistant Secretary, J. A. Joy, Atlantic City, N. J.; Librarian, Geo. W. Webster, Chicago; Board of Trustees, E. E. Montgomery, H. L. E. Johnson and C. A. L. Reed, re-elected.

Judicial Council—J. D. Griffith, Kansas City, Mo.; P. H. Bailhache, Marine Hospital Service; J. L. Cook, Cleveland, Ohio; J. P. Lewis, Topeka, Kans.; F. H. Wiggin, New York City; J. W. Irwin, Louisville, Ky.; Walter Wyman, Washington, D.C.

Annual Orations—On Medicine: John A. Witherspoon, Nashville, Tenn. On Surgery: W. L. Rodman, Philadelphia, Pa. On State Medicine: Victor C. Vaughan, Ann Arbor, Mich.

SECTION OFFICERS.

Surgery and Anatomy—Chairman, H. O. Walker, Detroit, Mich.; Secretary, Ramon Guiteras, New York City.

Physiology and Dietetics—Chairman, Elmer Lee, New York City; Secretary, R. Harvey Cook, Oxford, Ohio; Executive Committee, A. P. Clarke, Cambridge, Mass.; Randall Hunt, Shreveport, La.; James Weir, Jr., Owensboro, Ky.

Practice of Medicine—Chairman, Geo. Dock, Ann Arbor, Mich.; Secretary, Dr. Futcher, Baltimore, Md.

Obstetrics and Diseases of Women—Chairman, W. E. B. Davis, Birmingham, Ala.; Secretary, F. F. Lawrence, Columbus, Ohio.

Diseases of Children—Chairman, Edward Rosenthal, Philadelphia; Secretary, Louis Fischer, New York City.

Materia Medica, Pharmacy and Therapeutics—Chairman, Leon L. Solomon, Louisville, Ky.; Secretary, J. W. Wainwright, New York City; Ex-

ecutive Committee, T. H. Stucky, Louisville, Ky.; John Shoemaker, Philadelphia; Warren B. Hill, Milwaukee, Wis.

Laryngology and Octology—Chairman, Christian R. Holmes, Cincinnati; Secretary, J. A. Stucky, Lexington, Ky.

Neurology and Medical Jurisprudence—Chairman, Hugh T. Patrick, Chicago; Secretary, C. F. Clark, Columbus, Ohio.

Section on State Medicine—Chairman, W. C. Woodward, Washington, D.C.; Secretary, Amand Ravold, St. Louis.

Section on Stomatology—Chairman, M. H. Fletcher, Cincinnati; Secretary, Eugene S. Talbot, Chicago; Executive Committee, John S. Marshall; Chicago; A. E. Baldwin, Chicago; G. V. I. Brown, Milwaukee.

The following are the members of the Executive Committee for the ensuing year: Chairman, W. J. Herdman, Ann Arbor, Mich.; Vice-Chairman, W. T. Mayo, Rochester, Minn.; additional members, J. H. Musser, Philadelphia; Henry F. Tuley, Louisville.

The Association adjourned on Friday, June 9, to meet in Atlantic City, N. J., on the first Thursday in June, 1900.—*Condensed from Jonrnal of American Medical Association.*

OPENING EXERCISES OF SEWANEE MEDICAL COLLEGE.

The Medical Department of the University of the South, after a six weeks' preliminary term, commenced regular work on the 22d ult., with appropriate exercises at St. Augustine Chapel. Addresses were made by Rt. Rev. Thos. F. Gailor, Bishop of Tennessee; Prof. W. C. Bilbro, and Dr. J. S. Cain, Dean of the Department. There were 120 students present on the occasion, which large number, ten days in advance of the official opening, with the usual subsequent increase, would reasonably indicate a class of double this number when entirely made up. A noticeable feature in the present class is the large proportion of first-course students, showing that the four-course requirement now being rigidly enforced is not deterring young men from embarking in the study of medicine.

An Adjuvant as Well as a Menstruum.—The practitioner naturally seeks anything that will enhance the physiological action of a drug, render it more assimilable or less disturbing, and is puzzled at times to find a medium wnich will enable him to get the very best results frequently demanded by the conditions. Drugs that cause gastric irritability—like the salicylates—must often be abandoned (though absolutely indicated and requiring to be "pushed") because of the adverse effects set up. So, too, with turpentine, how difficult to emulsify and render it non-irritating. The bromide or iodide of potash, especially with children, has to be abandoned at times, because of the nausea and vomiting so frequently experienced.

What the practitioner may not know, and what we want him to know, is: He has at command a perfect vehicle for a wide range of drugs that will permit a tolerance not to be found with any other menstruum, and one that will also form many desirable combinations—the Phillips' Milk of Magnesia. The range of usefulness of this hydrate antacid (locally and systemically) is as broad as the acid conditions calling for its employment. It is a particularly advantageous adjunct in the administration of the drugs named above.

In the gouty and rheumatic diatheses due to uric, lactic or lithic acidity, it is valuable; while in the intestinal indigestion of infants attended with flatulency, it serves admirably, alone or in combination with some of the carminatives. The assertion can be made positively that it produces no concretions, as with the calcined or carbonic acid as from the carbonate form.

We can emphatically endorse and commend this preparation to our professional friends.

CHOLERAIC DIARRHEA.—A practitioner devoting especial attention to the diseases of children says:

"In the treatment of choleraic diarrhea we are safe, it matters not at what time we may be called, in administering some antiseptic medication, something which will prevent fermentation and have a destructive effect upon the septic germs more than likely present in the alimentary canal. Happy effects are often secured by the use of Listerine properly diluted; a favorite prescription is the following.

℞ Lambert's Listerine.
Glycerine (c. p.)
Syr. Simpl.
Aquæ cinnamon, aa ℥j. M.
Sig. Teaspoonful every one, two or three hours, as may be indicated.

"Taking into consideration the component parts of Listerine, it impresses me favorably as a prophylactic and remedial agent for cholera, along with other intestinal disturbances. The eucalyptus, thyme, gaultheria and boracic acid which it contains are all antagonistic to germ life and oppose fermentation. The preliminary diarrhea (cholerine, as it is called) may well receive teaspoonful doses of Listerine combined with the same amount of glycerine; in fact, I should be inclined to recommend to the laity this combination as a prophylactic measure."

SOLAR HEAT.—Direct exposure to the sun's rays, employment in or living in hot and poorly-ventilated offices, workshops or rooms, are

among the most prolific causes of headache in summer-time, as well as of heat exhaustion and sunstroke. For these headaches, and for the nausea which often accompanies them, Antikamnia will be found to afford prompt relief and can be safely given. Insomnia from solar heat is readily overcome by one or two five grains Antikamnia tablets at supper time, and again before retiring. If these conditions are partly dependent upon a disordered stomach, two five-grain Antikamnia tablets with fifteen or twenty drops of aromatic spirits of ammonia, well diluted, are advisable. For the pain following sun or heat-stroke, Antikamnia in doses of one or two tablets every two or three hours will produce the ease and rest necessary to complete recovery. As a preventive of and cure for nausea while traveling by railroad and steamboat, and for genuine *mal de mer*, or seasickness, Antikamnia is unsurpassed, and is recommended by the surgeons of the White Star, Cunard and American Steamship Lines.

NEURALGIA.—The most frequent causes of neuralgia are a rheumatic or gouty diathesis, blood disorders, malarial conditions, colds and exposure. If the concurrent experience of thousands of physicians be worth anything, the efficacy of Tongaline in relieving the pain of neuralgia, which is all of the complaint so far as pathological science now knows, is as marked and specific as is the action of quinine in malarial diseases.

In all forms of neuralgia, whether simple or complicated by the rheumatic diathesis, Tongaline is the rational remedy, not only on account of its pronounced anodyne and anti-neuralgic effects, but more particularly from its strong eliminative action on the toxines of rheumatism or gout, as well as from its being a decided cholagogue.

THE DIET IN CHRONIC DIARRHEA OF CHILDREN.—If the child be under one year of age the diet must not go beyond the range allowed at that period of life.

Barley-water and whey—perhaps milk, according to circumstances—and Mellin's Food, raw meat juice, white of egg, or yellow of egg with water, mutton broth, weak beef tea, is a sufficient list of foods. It is generally asserted that animal broths are deleterious in diarrhea; used in small quantities, cold, I have not noticed any prejudicial effect, and certainly the number of stools has not appeared to be increased.—*From "Treatment of Disease in Children," by Angell Money, M.D.*

THE Phosphates of Iron, Soda, Lime and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in nervous exhaustion, general debility, etc. Robinson's Phosphoric Elixir is an elegant solution of these chemicals.

Reviews and Book Notices.

MASSAGE AND THE ORIGINAL SWEDISH MOVEMENTS: Their Application to Various Diseases of the Body. By KURRE W. OSTROM, from the Royal University of Sweden. Fourth Edition, Revised and Enlarged. 12mo, cloth, pp. 168, with 105 Illustrations. Price, $1.00. P. BLAKISTON'S SON & Co., Publishers, 1012 Walnut street, Philadelphia, 1899.

This work explains how the movements are to be applied to all parts of the body, and shows for what such diseases movements are indicated. It will prove of decided value to the physician who desires to study the principal points of mechanical therapy, and is essential as a text-book for the nurse and professional masseur.

A HAND-BOOK OF OBSTETRIC NURSING, For Nurses, Students and Mothers. By ANNA M. FULLERTON, M.D., Obstetrician, Gynecologist and Surgeon to the Woman's Hospital of Philadelphia; Clinical Professor of Gynecology in the Woman's Medical College of Pennsylvania: 12mo, pp. 162. Fifth Revised Edition. Illustrated. Price $1. P. BLAKISTON'S SON & Co., Publishers, 1012 Walnut street, Philadelphia, 1899.

We have here the methods observed in the obstetric work of the Woman's Hospital, in which has been demonstrated the prime value of cleanliness, antisepsis, and eternal vigilance on the part of the nurse in reducing to the minimum the dangrse and mortality of child-birth. Dr. Fullerton shows that she not only knows what to say, but has the happy faculty of saying it in a plain, practical and terse style that not only interests, but instructs.

SURGICAL NURSING. By BERTHA M. VOSWINKLE, Graduate of Episcopal Hospital, Philadelphia; late Nurse-in-Charge of Children's Hospital, Columbus, Ohio. 12mo, cloth, pp. 204. Second Edition, Revised and Enlarged, with 112 Illustrations. Price $1. P. BLAKISTON'S SON & Co., Publishers, 1012 Walnut street, Philadelphia, 1899.

The aim of the author is to give a concise outline of surgical nursing in general, together with a list of antiseptic agents, the mode of preparation of the various materials used in antiseptic and aseptic surgery, and the application of splints and fixed dressings, and will be found of special value to those not having opportunity of thorough surgical training.

URINARY ANALYSIS AND DIAGNOSIS BY MICROSCOPICAL AND CHEMICAL EXAMINATIONS. By LOUIS HEITZMANN, M.D., New York. One volume, 8vo, pp. 270, 108 Original Illustrations. Price, muslin, $2 net. WM. WOOD & Co., Publishers, New York, 1899.

This book is divided into three parts—First, Chemical Examination; second, Microscopical Examination; and third, Microscopical Diagnosis. It is evident that a mere description of the features found in different cases cannot be sufficiently clear, but illustrations made directly from nature are absolutely essential. In this volume all the illustrations, without exception, have been drawn by the author directly from specimens in his possession. This book will be found a great help in urinary analysis. Microscopical examination not only verifies chemical analysis in urinary troubles, but is efficient in the event of its failure. In the third part of this excellent work, devoted to Microscopical Diagnosis, full page illustrations have been added to elucidate the text, each drawing giving the features found in the case it illustrates.

A REVIEW OF RECENT LEGAL DECISIONS AFFECTING PHYSICIANS, DENTISTS, DRUGGISTS, AND THE PUBLIC HEALTH. By W. A. PURRINGTON of the New York Bar. 8vo. paper, pp. 105. Price 50c. E. B. TREAT & Co., Publishers- 241–243 West Twenty-third street, New York, 1899.

In this little brochure we have a practical and condensed review of the recent legal decisions that have direct relations to Medicine, Surgery, Dentistry, Pharmacy and State Medicine, with citations on authority on any points likely to arise, which

will be of material value and assistance to magistrates, courts, and members of the above professions.

RETINOSCOPY (or Shadow Art) in the Determination of Refraction at One Metre Distance, with the Plain Mirror. By JAMES THORINGTON, M. D., Adjunct Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine, etc. 8vo, cloth pp. 86, with 43 Illustrations, 12 of which are colored. Third Edition, Revised and Enlarged. Price $1. P. BLAKISTON'S SON & Co., Publishers, 1012 Walnut street, Philadelphia, 1899.

The "Shadow Test," sometimes designated as Skiascopy, is simply and practically described in this little volume, its preceding editions having secured such favorable consideration that little comment is needed at our hands. The illustrations, directions, advice and general information are eminently practical, clear and concise, and so plain "that he who runs may read."

OCULAR THERAPEUTICS FOR PHYSICIANS AND STUDENTS. BY F. W. MAX OHLMANN, M.D. (Minden, Germany), late Assistant Physician in the Ophthalmological Institute of the Royal Prussian University of Berlin, etc. Translated by Chas. A. Oliver, A.M., M.D. (Univ. of Pa.), One of the Attending Surgeons to Wills' Eye Hospital; One of the Ophthalmic Surgeons to the Philadelphia Hospital, etc. 8vo, cloth, pp. 274. Price $1.75. P. BLAKISTON'S SON & Co., Publishers, 1012 Walnut street, Philadelphia, 1899.

This is exclusively a work limited to the treatment of Ocular troubles, written by a practitioner for practitioners. The subject matter is clear and easy of comprehension. In the original the metric subject of weights and measures is used, yet while Dr. Oliver has retained these, he has also given their nearest equivalent in apothecaries tables.

THE SOUTHERN PRACTITIONER.

AN INDEPENDENT MONTHLY JOURNAL,

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Original Communications.

ARE THE USES OF TOBACCO DETRIMENTAL TO MANKIND?*

BY T. H. MARABLE, M.D., OF CLARKSVILLE, TENN.

The tobacco plant belongs to the order *Solanaceæ* and the *genus Nicotiana*. The order to which tobacco belongs has rather a bad reputation, as almost every one of this genus contains poisonous plants, and they are generally unsightly, or have an unpleasant odor.

Among the disreputable kindred of tobacco are night-shade (*Solanum nigrum*), horse-nettle (*Solanum Carolinensis*), belladonna (*Atropia Belladonna*), henbane (*Hyosciamus niger*), and Jimson weed (*Datura Stramonium*). The character of the order is somewhat relieved by the Irish potato (*Solanum tuberosum*),

* President's Address. Delivered at the meeting of the Medical Society of the State of Tennessee, April 11, 1899.

pepper (*Capsicum annum*), tomato (*Lycopersicum esculentum*), and the night blooming jessamine (*Cestrum Parqui*).

There is good reason to believe that this plant is a native of tropical America, where it was found by the Spaniards upon their arrival. It is at present cultivated in most parts of the world, and nowhere more abundantly than within the limits of the United States. Virginia is, perhaps, the most celebrated for its culture. The harvest is in August. The total estimate of the annual product of tobacco throughout the United States at present is 500,000 tons, five and one fourth millions acres of land in the world is given up to the cultivation of tobacco. Internal revenue to United States $40,000,000 per annum.

The various species of tobacco found in commerce all contain a liquid, volatile, poisonous alkaloid (nicotine), probably united in the plant with citric and malic acids. There is, also, present in tobacco an unimportant camphor nicotianin. The general composition of the plant as shown by Pasell & Riesman is—

Nicotine	0.060
Concrete Volatile Oil	0.010
Bitter Extractive	2.870
Gum with Malate of Lime	1.740
Chlorophyl	0.267
Albumen and Gluten	1.308
Malic Acid	0.510
Lignine and a trace of Starch	4.969
Sulphate, Nitrate and Malate of Potash, Chloride of Potassium, Phosphate and Malate of Lime, and Malate of Ammonia	0.734
Silica	0.088
Water	88.280
	100.836

QUANTITATIVE ESTIMATE OF NICOTINE IN TOBACCO.—The best process (although not a perfectly accurate one) is the following: Twenty-five grams of the tobacco are mixed with milk of lime, and allowed to stand until there is no odor of ammonia; the mixture is then exhausted by petroleum ether, the ether shaken up with a slight excess of normal sulphuric acid, and triturated back by baryta water; the sulphate of baryta may be collected and weighed, so as to control the results with regard to the per centage of nicotine in commercial tobacco. Kosutany

found from 1.686 to 3.738 per cent. in dry tobacco; Letheby, in six samples, from 1.5 to 3.2 per cent.; whilst Schlossing gives for Havana 2 per cent., Maryland 2.29 per cent., Kentucky 6.09 per cent., Virginia 6.87 per cent., and for French tobacco, quantities varying from 3.22 to 7.96 per cent. Again, Lenoble found in Paraguay tobacco from 1.8 to 6 per cent.; and Wittstein, in six sorts of tobacco in Germany, 1.54 to 2.72 per cent. We are thus driven to the conclusion that the alkaloid varies within very wide limits.

The first detailed account of smoking among the Indians is given by Oreido. It was used by them to produce stupor and insensibility. The smoke was taken by inhalation through the nostrils by means of a hollow forked cane in one piece about a span long. When used the forked ends are inserted into the nostrils, the other end being applied to the burning leaves of the herb. This implement is called tobacco, from which the name tobacco is taken. There are four ways in which tobacco is used for its effects by men—chewing, snuffing, smoking pipe or cigar, and smoking cigarettes. You will note that I class cigarette smoking as a distinct manner of using tobacco, for, indeed, it is, and I think the most dangerous form in which tobacco can be used.

Physiological action of tobacco is hostile to all forms of life. On man the effects have been very minutely observed. In small doses it occasions a burning sensation in the tongue, a sensation of heat in the throat, a sense of rawness throughout the œsophagus, and a feeling of warmth in the stomach. The effect produced when used in excessive quantities, faintness, giddiness, nausea, vomiting, gastrodynia, cardialgia, torpor, sleepiness, palpitation of the heart, hyperchondriasis, deafness, amblyopia, delirium, general relaxation of muscular system, trembling, complete prostration of strength, coldness of the surface, cold, clammy perspiration, convulsive movements, paralysis and death. These conditions and symptoms have all been repeatedly noted by physicians, and reported in medical journals.

As to the composition of tobacco smoke, numerous investigations have been made. Kissling, experimenting on cigars, found that a large proportion of the nicotine passes unaltered into the smoke. Dealing with a tobacco containing 3.75 per cent. of

nicotine, he recovered from the smoke 52.02 per cent. of the total nicotine consumed, while in the unconsumed remains of the tobacco the proportion of nicotine was increased to 5.03 per cent. With a second sample of tobacco, having likewise 3.75 per cent. of nicotine, the smoke yielded only 27.83 per cent. of the total nicotine consumed, and the percentage in the unconsumed remains was raised to 4.51. From a tobacco containing only 0.30 of nicotine he recovered 84.23 of nicotine in the smoke.

The composition of tobacco smoke is highly complex, but beyond nicotine the only substances found in appreciable quantities are the lower members of the picoline series. Dudley has made experiments seeking to explain the poisonous effects of cigarette smoking. He states, besides combustion, destructive distillation takes place in the pipe, cigar and cigarette as the result of heat, and the exclusion of the oxygen of the air which has been completely used up in passing through the red hot burning tobacco in front of that which the fire has not yet reached. The products of this destructive distillation are ammonia, a yellow and very poisonous substance of disagreeable odor called nicotianin, some nicotine, though most of the latter has been destroyed by heat, and many other products of minor importance. When there is a layer of fire one-sixty-fourth to one-sixteenth of an inch in thickness, as the air is drawn through the hot carbon, this is reduced to carbon monoxide, and as such is drawn into the mouth, for when it passes beyond the fire there is no air or oxygen to convert it back to carbon dioxide. Its well known poisonous effects when inhaled are the results of its affinity for the hemoglobin of the blood, converting the oxyhemoglobin into carbonic oxide hemoglobin, a stable compound not reduced in the circulation; hence, producing permanent asphyxia. Schtscherbak experimented upon animals by forcing them to inhale the smoke from a burning cigar, but permitting them to exhale freely. He found exalted faradic excitability of the motor centers and subjacent medullary substance. When the nicotine was removed from the tobacco smoke by passing it through hydrochloric acid this was not observed. Subcutaneous injections of nicotine (0.50 gramme) also increased the faradic excitability, showing the same symptoms by injection of nicotine

as are seen from inhaling tobacco smoke, and proving that nicotine is taken into the system by smoking. The cheapness of the cigarette enables the young to buy and use them. Ninety per cent. of cigarette smokers inhale the smoke. The cigarette is smoked to the end and discharges directly into the mouth of the smoker everything that is produced by the burning. The cigarette is rapidly burned and the smoke inhaled, thereby increasing the proportion of the poisonous substance which is drawn into the mouth, and when the saliva is retained the fullest effect of all the narcotic ingredients of the smoke will be produced upon the nervous system of the cigarette smoker.

Coomes, of Louisville, considers the use of cigarettes particularly injurious, because of the almost universal practice of inhaling their smoke and expiring it through the nose.

Dudley, *Medical News*, 1899, says more injury results from cigarettes than from cigar or pipe smoking, because as a rule the smoke of the former is inhaled.

Cersoy, a French writer, finds smokers' vertigo confined to those who inhale tobacco smoke, and ascribed the injurious effects to its action upon the pneumogastric while it is retained in the pharynx, larynx and trachea, and that the cardiac, pulmonary and digestive disturbances are mainly the result of enfeeblement in pneumogastric action.

Hall, of Texas, holds smoking to be the most noxious form of using the weed.

Tucker, Analyst to the State Board of Health, Pennsylvania, in his report on cigarettes, says that careful analysis of tobacco and paper failed to reveal other injurious substances than the tobacco itself. The evils of cigarette smoking being due, he thinks, to their cheapness, enabling excessive quantities to be used both by children and immature persons who usually inhale the smoke.

Dumas reports a series of cases from Algeria on the noxious effects of tobacco, among which is a case of angina pectoris ascribed to excessive cigarette smoking, which resulted fatally.

Lewin, of Paris, 1895, states that the deleterious effects of tobacco are observable after its use in any form—smoking, chewing or snuffing. Typical nicotinism occurs, as a rule, after a long-continued use of tobacco, sometimes not until twenty

years of age. While many smokers reach old age, many people in good health in old age become they are smokers. In higher stature non-smokers get on better than smokers, children from nine to fifteen years of age who smoke showing less intelligence, and laziness. Adults are liable to cephalic pressure, insomnia or its converse sleepiness, melancholy aversion for work, and dizziness.

Kiernan, *Medical Record*, 1889, says that the stimulating and narcotic properties of tobacco have an effect upon the body in moderate use as well as in immoderate use, the effect being simply in proportion to the quantity used, though the effects of moderate use may not be measurable by ordinary means. It is easy to see the effects of large amounts of tobacco in the stunted growth of adolescents, in functional cardiac disorders, loss of appetite, neuroses of motion, intellectual sluggishness, loss of memory, color blindness, marked blunting of various functions of sensation.

J. W. Seaver, of New Haven, 1894, gives particulars of the comparative condition of seventy-seven non-users of tobacco, twenty-two irregular users, and seventy habitual users, at Yale University. In weight the non-users, in 1891. increased 10.4 per cent. more than the regular users, and 6.6 per cent. more than the occasional users. In heighth the non-users increased 24 per cent. more than the regular users, and 14 per cent. more than the occasional users. In chest-girth the non-user had an advantage over the regular user of 26.7 per cent., and over the occasional user of 22 per cent. In lung capacity the growth was in favor of the non-user 77.5 per cent. when compared with the regular user, and 49.5 per cent. compared with the irregular user.

Huchard, of Paris, 1890, cites the effects of tobacco, which form part of a treatise on diseases of the heart. He reviews the chemistry and physiological action of tobacco, showing its effects on the nerve centers, the pneumogastric nerves, the vascular system, and on muscular tissue. He considers the chief action to be upon the *medulla oblongata*. He describes what is termed the "irritable heart of smokers," in which there may be acceleration or slowing of the pulse, intermittence and arythmia of the heart, lipothymia and syncope, angina, præcordial anxiety,

palpitation, sudden and distressing arrests of the heart, and extreme irritability of the circulatory functions. This action of tobacco is usually ascribed to its effect on the nervous system in general, and the pneumogastric in particular; but this is not all; much is due to its action on the muscular system in general, and particularly upon the vascular walls. Tobacco is not simply a cardiac poison: it is, also, an arterial poison. The vaso-constrictive action of nicotine has been thoroughly demonstrated. The effects of tobacco resemble absolutely those produced by galvanization of the great sympathetic; it is probably through the nerves that nicotine acts upon the vessels. The tetanizing process produces, in reality, a muscular ischæmia, which explains in part the tremor, muscular weakness and paresis observed in nicotinized animals. This vaso-constrictive action produces disturbances in various organs. The nerve centers show signs of ischæmia, cerebro-spinal irritation, headaches, with vomiting, morning fatigue, impairment of memory, physical irritation, inaptitude for work, and even transitory aphasia, with incomplete hemiplegia alternating from right to left. The respiratory apparatus, besides serious attacks of dyspnœa produced by the action of tobacco on medulla and respiratory muscles, may exhibit disturbances attributable to contraction of the pulmonary vessels. The diuretic effect of tobacco is also explained by this hyper-arterial tension. But it is upon the heart itself that the most deplorable effects of this vascular tetanization are produced. Certain attacks of angina and disturbances of rythm may be ascribed to spasm of the coronary arteries and consequent ischæmia. The hard, small, tobacco pulse is also explained by this vaso-constrictive action. At first these troubles are functional, but in time, from repetition or permanence of these vascular contractures, a sort of peripheral circulatory barrier is set up. Arterial tension is increased, the heart suffers from successive dilatations, which in turn becomes permanent, and there is produced, finally, a general arterio-sclerosis, which, if it involves the heart muscle, may produce various degenerations, of which dystrophic sclerosis is the most common. We may have two or three different forms of angina pectoris from tobacco: 1. Functional angina, relatively benign, resulting from a spasmodic state of the coronary arteries, and without a myocardiac

lesion. This is the tobacco spasm. It is rapidly cured by the discontinuance of the tobacco habit. 2. Organic angina, of serious character, resulting from coronary sclerosis—the tobacco sclerosis. It is not curable. 3. A gastric form, which is the most benign of all, a functional angina, resulting from frequent disturbance of digestion produced by tobacco, such as gastralgia, dilatation of the stomach, etc.

Dumas doubts the efficacy of tobacco smoke in arresting the development of the tubercle bacillus from his experiment in the case of a young subject who smoked by inhalation almost continually, but finally developed phtisis, which improved after he ceased to smoke for a time, yet became worse on his resuming it, death finally resulting. The observer considered it a case of phthisis provoked by the abuse of tobacco smoking. I do not believe tobacco prevents tuberculosis. Have seen four cases of tuberculosis within past twelve months, primary involvement in lungs, secondary tuberculosis of throat. These men were users of tobacco, chewed and smoked.

Broomhead records the death of a boy, aged 13, following nausea and vomiting after cigarette smoking, terminating in convulsions and subsequent respiratory failure.

The following is what Dr. Bartholow says on the subject: "It is high time something were done to put a stop to this fruitful evil which is stunting the growth and ruining the health of thousands of boys. It is just horrible to see these boys, little fellows, many of them not more than eight or ten years old, not street boys, but well dressed and carefully nurtured boys, gathered in knots in some corner where they think they will not be observed, learning to smoke. Parents see their sons getting thin and yellow and irritable, the family doctor is called in, and without going to the root of the evil, prescribes tonics which do no perceptible good.

"The prodigious increase of cigarette smoking among boys in the last few years is an evil which will tend to the deterioration of the race if it is not checked. But it is not hard to account for. Boys are very imitative. They follow the fashion with promptness and zeal. Cigarettes are the rage at Harvard. It is the correct thing to smoke these poisonous little rolls of tobacco and paper. Whatever is fashionable in a great school like

Harvard is sure in a very short time to be indulgible among young men and boys all over the country. Another great cause of the mischief is that boys are very fond of imitating their elders. Smoking in public places ought to be discouraged. There ought to be a sentiment created against it, and the press is the power to create such a sentiment. Every man when he smokes in public ought to think that he is encouraging some boy to smoke. The boy will smoke a cigarette imagining that he will get less tobacco in that way, and ignorant of the fact that cigarette smoking is the most pernicious form in which tobacco is used. Tobacco in any form is a great injury to a growing boy, and the fashion of inhaling the smoke and then forcing it through the nose is deadly in its effects. It causes catarrh in the air passages, throat, and nose, and makes the smoker disgusting as well as puny and stunted. You will find that these cigarette smoking youths have impaired digestions, small and poor muscles, irritable tempers, and a lack of capacity for sustained effort of any kind, and I believe that you will find that they do not succeed in life. The men who win are men of strong physique. A cigarette smoking boy will not make a strong man. These are some of the evils which the individual brings upon himself. But the mischief does not stop with the individual, but is transmitted to his offspring. Nervous peculiarities are just as readily transmitted as physical peculiarities. The acquired irritability, imperfect development, and loss of nervous force of the father is inherited by the child, who in turn further impairs his health by the same process, so that in the course of three or four generations there must be a great deterioration in the race. The sale of cigarettes to boys should be prohibited by law."

It is truly melancholy to witness the great number of the young who smoke now-a-days, and it is painful to contemplate how many promising youths must be stunted in their growth, and a physical and mental wreck before arriving at man's estate. Look at the pale, young face, imperfect development, and deficient muscular power of the cigarette fiend; the action of the heart and lungs is impaired by the influence of the narcotic on the nervous system, but a morbid state of the larynx, trachea, and lungs, results from the direct action of the smoke. The

[illegible] with a [illegible].

The [illegible] of the State of Tennessee in 1897, [illegible] the importation of sale of cigarettes, [illegible] a [illegible] of the [illegible]. The law was [illegible] [illegible] the [illegible] [illegible] for sale. The case [illegible] the Judge [illegible] of the Federal Court, and the [illegible] [illegible] [illegible] conflicts with the [illegible] clause of the Federal Constitution. The [illegible] [illegible] to the Supreme Court of Tennessee. [illegible] [illegible] of the Federal Judge, and [illegible] [illegible] the decision of Judge Lurton shall be affirmed [illegible] the Supreme Court of the United States.

Our Supreme Court in the case of Austin vs. the State, undertakes to [illegible] the question in a very elaborate and strong opinion by Judge Caldwell. The broad position is taken in the opinion, and very properly, that any article that is noxious or deleterious [illegible] comes within the provision of the commerce clause of the Federal Constitution. The fact is cited that the Supreme Court of the United States has held that discolored or adulterated oleomargarine is an article whose importation can be prohibited by the States. Upon this principle there seems to be no controversy, and the only remaining question, as said by Judge Caldwell, is this: "Are cigarettes legitimate articles of commerce?" Continuing, Judge Caldwell says:

"We think not, because wholly noxious and deleterious to health. Their use is always harmful, and never beneficial. They possess no virtue, but are inherently bad, and bad only. They find no true commendation for merit or usefulness in any sphere. On the contrary, they are widely condemned as pernicious altogether. Beyond question, their every tendency is towards the impairment of physical health and mental vigor. There is no proof in the record as to the character of cigarettes; yet their character is so well and so generally known to be that stated above, that the courts are authorized to take judicial cognizance of the fact. No particular proof is required in regard to those facts, which by human observation and experience, have become well and generally known to be true. Nor is it neces-

sary that they be formally recorded in written history or science to entitle courts to take judicial notice of them. It is a part of the history of the organization of the volunteer army in the United States during the present year, 1898, that large numbers of men, otherwise capable, had rendered themselves unfit for service by the use of cigarettes, and that among the applicants who were addicted to the use of cigarettes, more were rejected by examining physicians on account of disabilities thus caused than for any other, and perhaps every other reason. It is, also, a part of the unwritten history of the legislation in question that it was based upon and brought to passage by the firm conviction in the minds of the legislators and of the public that cigarettes are wholly noxious and deleterious. The enactment was made upon this idea, and alone for the protection of the people of the State from an unmitigated evil. Such being the nature of cigarettes, they cannot be legitimate articles of commerce.

Every State has the right under its police power to prohibit the importation and sale of all articles inherently unworthy of commerce, and unfit for the use of its people. Indeed, an active duty rests upon the legislative branch of the State government to enact appropriate laws for the protection of the public against the hurtful influences of such articles; and in the discharge of that important duty, the members of the Legislature must be allowed to act in accordance with the dictates of their own best judgement. The right of a State to protect its people in their comfort, health and safety, against the importation and sale of non-commercial articles has long been recognized and never questioned by the Supreme Court of the United States."

In support of this decision numerous cases are cited involving adulterated oleomargarine and other articles unfit for public use.

The Supreme Court takes judicial knowledge of the hurtful nature of cigarettes, and very properly assumes that there are none who are ignorant of their tendency and effect.

The output of cigarettes in the United States for February, 1898, was 282,124,590.

CLOSURE OF THE ABDOMINAL INCISION AFTER LAPAROTOMY AND THE TENDENCY TO HERNIA.

* * *

In the course of time abdominal operators have reached a proficiency in technique and an assurance in the application of the details of asepsis that have made laparotomy a comparatively facile and safe procedure. There has however' remained an objection not foreseen at first, but ever becoming more insistently prominent as the number of abdominal operations increased. Despite the most anxious care and most solicitous technique, ventral herniæ occur at the site of the abdominal incision, and often make life miserable for the patient. The frequency of the occurrence of hernia has become one of the great sources of opprobrium to modern abdominal surgery, and it is not unusual to have patients who do not fear the result of the operation itself hesitate to undergo it because of the fear of the subsequent hernia that they have learned to dread from the experience of friends or acquaintances.

The review of the recent results of post-operational hernia by Dr. John G. Clark of Johns Hopkins Hospital in the recent number of *Progressive Medicine** shows that a number of factors which have usually been considered as influencing the production of hernia really have no ætiological connection with it. For instance, permitting the patients to get up after seventeen or eighteen days does not predispose to hernia, and keeping them in bed for longer periods does not prove a prophylactic against its occurrence. The wearing or failure to wear a bandage after operation does not affect the liability to hernia either favorably or unfavorably. Pregnancy following immediately or remotely after operation plays no part in the production of hernia, despite preconceived notions to the contrary.

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*PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D. Volume II. June, 1899. Lea Brothers & Co., Philadelphia.

It is evident then that the occurrence of ventral hernia after operation is mainly due to the method of closing the abdominal wound, despite all that has been said by certain gynecologists abroad as to the advantage to be derived in this matter from making the incision through the rectus muscle. Dr. Clark, from his experience at Johns Hopkins Hospital, as well as his records of the subject, decides in favor of the incision in the linea alba. Two things are necessary to lessen the tendency to hernia in closing the incision. First, the fascia, *i.e.*, the aponeurosis of the recti muscles, must be carefully brought together so as to secure complete and firm continuous union along the line of section. The essential point in placing the sutures is to catch enough of the aponeurosis to firmly bring the borders of the fascia not only into complete coaptation, but also to slightly elevate them into a median ridge. The coaptation of the fascia must be especially exact at the lower end of the incision, when the liability to hernia is greater, because the layers of fascia are fewer.

The second requisite for a firm cicatrix is to secure healing *per primam*, and this is best secured by leaving no dead space in which blood or lymph may collect to become infected, and by allowing no penetrating cutaneous stitches through which micro-organisms may penetrate from the surface despite the most careful precautions. On the whole, this subject of the avoidance of hernia by a careful technique in the closure of the abdominal incision would seem to have reached a development that leaves very little to be desired, and it is evident that it is only in patients with especially relaxed tissues or with natural tendencies to hernia that the operator may feel exempt from responsibility in future cases of this annoying sequela.

A NEW OPERATION FOR HERNIA.*

BY EMORY LANPHEAR, M.D., PH.D., ST. LOUIS, MO.
Fellow of the St. Louis Academy of Medical and Surgical Sciences.

Having had three patients with whom complete atrophy of the testicle followed the Bassini operation for inguinal hernia,

*Read before the Academy of Medical and Surgical Sciences.

and some recurrences when the Czerny and the Macewan methods were adopted, I, some three years ago, decided to try a plan which I felt certain would prove successful, since by it, total obliteration of the inguinal canal would be obtained. Experimentally the chief objection to the plan has been the reluctance of patients to accept the proposed procedure; so that thus far I have succeeded in securing but three cases. These have, thus far, been entirely satisfactory in their history subsequently to the operation.

The method is as follows: A large flap is turned back, exposing the hernial sac and the inguinal canal in their entirety The sac is then carfully dissected out, opened and contents reduced. At this stage the opening into the abdomen is closed with gauze and the spermatic cord and testicle lifted out of their natural position, and enveloped in iodoform gauze. From the hernial sac (pariental peritoneum) there is now made a pouch, or artificial tunica vaginalis testis, into which the testicle and cord are passed and enclosed with catgut sutures in such way that not too much pressure is possible upon the cord; the whole pushed into the abdominal cavity, and anchored by a few catgut sutures. The cut in the peritoneum is next closed; next the opening into the scrotum sutured, then each muscular layer of the abdominal wall carefully sutured, completely obliterating the canal—just as is done in operating for inguinal hernia in the female.

That the ultimate fate of the buried testicle is atrophy I cannot dispute, as no opportunity has yet presented for post-mortem examination; that it is possible I cannot deny. From a surgical standpoint the chief objection to this operation is that a suppurative orchitis or epididymitis might necessitate abdominal section; but suppurative inflammation of these structures is so comparatively rare that this danger can scarcely outweigh the advantages to be gained. Thus far only the most gratifying results have been noted.

Translations.

ON THE TREATMENT OF CHRONIC AND ACUTE DISEASES OF THE RESPIRATORY PASSAGES WITH GUAIACOL CARBONATE AND CREOSOTAL.

BY DR. FRITZ HOLSCHER,
Physician-in-Chief to the Dreikonigen Hospital, Mulheim a. Rhein.

(Translated from the *Tageblatt fur den Kongress zur Bekampfung der Tuberkulose als Volkskrankheit*, No. 3, Thursday, May 25, 1899.)

1. The treatment of pulmonary tuberculosis by means of the Carbonate of Guaiacol introduced by Seifert and myself in 1891, and by means of the analogous product Creosotal (Carbonate of Creosote) recommended shortly thereafter by Chaumier, has since then taken the first place in the medicinal management of the disease. The unanimous verdict of a great number of exact and competent observers places the curative results obtained with the two drugs beyond all peradventure of doubt.

2. Careful nutrition, and if possible, over-nutrition, is an essential factor in this form of treatment. A dietary rich in albuminoids is to be preferred, since the large amounts of guaiacol and creosote absorbed from the carbonates effect a markedly increased decomposition of albumins in the body. The examination of the urine shows that the absorbed creosote and guaiacol, combined with sulphur, is excreted again through the kidneys. This sulphur can only be derived from the albumins; and the latter must undergo decomposition from the withdrawal of the element. The amount of albumins corresponding to the sulphur excreted in combination with the creosote is a considerable one. A diet rich in albuminoids is therefore essential to prevent weakening of the patient whilst undergoing the Creosotal and Guaiacol Carbonate treatment. And since these remedies do not disturb the digestion like caustic and poisonous free creosote and

guaiacol, but on the contrary prevent such disturbances by stopping abnormal putrefactive processes, and increase the appetite, increased administration and assimilation of nutriment is made possible by their very exhibition.

3. The actions of Guaiacol Carbonate and Creosotal do not consist in the mere stimulation of the appetite, or in their influence on the symptoms of disease only. They seem to have a direct action upon the causative factor of the malady. In the first place the impregnation of the entire body with creosote combinations renders the life conditions unfavorable for the organic etiological agent of the disease; and in the second place it favors the elimination of the poisonous products of tissue metamorphosis which cause the disease symptoms, fever, anorexia, night-sweats, etc. These poisonous products are called labile albumins on account of their marked capabilities of chemical reaction. Hence they unite in the first place with the absorbed creosote, losing their sulphur; whilst the less actively reactive normal albumins only combine later. The withdrawal of the sulphur causes further decomposition, and the elimination of the products of such decomposition through the kidneys then follows.

4. The dark coloration of the urine which often occurs is no symptom of poisoning, and need not alarm the patient.

5. After the ingestion of Creosotal in large doses free creosote is eliminated directly through the lungs; the patient's breath smells strongly of the drug.

6. It is agreed by all careful observers that the Creosotal treatment has the following effects:

(*a.*) Great increase in the appetite even in those cases in which previous treatment with creosote has caused complete anorexia.

(*b.*) Rapid and often enormous increase of the body weight.

(*c.*) Disappearance of the fever, night-sweats, and weakness after several weeks treatment.

(*d.*) Diminution of the cough and expectoration, and their final disappearance. The bacilli in the expectoration rapidly decrease in number.

(*e.*) The physical signs of pronounced phthisis can be made to disappear in six months of treatment; a longer course is, however, often required. In beginning phthisis on the other

hand (apex catarrh with bacilli in the expectoration), the physical signs completely disappear after from two to three months of treatment.

7. The action of Creosotal in acute diseases of the lungs, such as pneumonia, broncho-pneumonia, grip pneumonia, etc., is even more remarkable than in chronic cases; as is shown by the researches which have just been published by Cassoute and Corgier from the hospitals of Marseilles. Pneumonia is cut short by the early administration of large doses of Creosotal; and the course of the disease is noticeably shortened when the drug is administered later on in the disease. The typical fall of temperature occurs in twenty-four hours after the administration of the drug. The afebrile condition is a permanent one if the exhibition of the Creosotal is persisted in. The temperature rises, however, if the administration of the remedy is discontinued before the auscultatory signs have completely disappeared. The sequelæ that so frequently occur, and more especially tuberculosis, are completely avoided by the Creosotal treatment of acute diseases of the lungs.

8. The use of ordinary creosote by many practitioners is not justified to-day, since Creosotal, administered as it is in drop doses, is cheap enough to be generally employed.

9. The extended employment of Creosotal and Guaiacol Carbonate at the present day will undoubtedly give us large statistical results of great interest. But these statistics will only be of permanent value if they include none but carefully observed cases, and if they are registered in tabular form, as has been done for example by Jacob and Nordt in the *Charite-Annalen* for 1897, with their experiences with Creosotal in Prof. Leyden's Clinic.

NIGHT SWEATS.—Night sweats are relieved by fifteen-grain doses of camphoric acid taken an hour before bedtime.—*H. A. Hare in Medical Record.*

IT IS SAID that men and apes are more alike in their destructive and brutish tendencies when under the influence of alcohol than at any other time. Then alcohol must be the connecting link!—*Medical Examiner.*

Abstracts.

POINTS IN THE ARSENICAL CAUSTIC TREATMENT OF CUTANEOUS CANCERS.

BY WILLIAM S. GOTTHEIL, M.D.

1. The arsenious acid caustic treatment of skin cancers does not contemplate or depend upon the actual destruction of the new growth by the caustic.

2. The method is based upon the fact that newly formed tissue of all kinds has less resisting power than the normal structure when exposed to an irritation and its consequent inflammation. Hence the former breaks down under an "insult" which the latter successfully resists.

3. If therefore the wholé affected area can be subjected to the influence of an irritant of just sufficient strength to cause a reactive inflammation intense enough to destroy the vitality of the new cells the older normal cells will survive.

4. Arsenious acid of properly mitigated strength is such an agent, and its application causes an inflammation of the required intensity.

5. It therefore exercises a selective influence upon the tissues to which it is applied, and causes the death of the cancer cells in localities outside the apparent limits of the new growth, where there is as yet no evidence of disease.

6. It is superior, in suitable cases, to any method, knife or cautery, which requires the exercise of the surgeon's judgment as to the extent to which it is to be carried. That that judgment is often wrong, and necessarily so, is shown by the frequency of recurrence under these methods even in the best hands.

7. It is applicable to all cutaneous carcinomata in which the deeper structures are not involved, and which do not extend far onto the mucous membranes.

8. It is easy of application; it is safe; it is only moderately painful; and its results compare favorably with those obtained with other methods.

Selections.

THE STANDARDIZATION OF DRUGS AND THE FORTHCOMING REVISION OF THE PHARMACOPŒIA—The present uncertainty of therapeutics is due not a little to the varying strength of drugs employed in the treatment of disease. It has been conclusively shown that no two parcels of hyoscyamus, belladonna, nux vomica, cinchona, opium, aconite, ergot or digitalis contain the same proportion of active constituents. What is true of these important remedies is still more true of those which are less frequently used and to the gathering and preservation of which less attention is consequently paid. The greater use of the alkaloids in medication which has characterized the prescribing of later years is in a large measure due to the varying strength of the official preparations. That this is no fanciful or minute difference is attested by the remarks frequently heard in gatherings of medical men, that if a good preparation can be secured of a particular drug almost certain therapeutic results will follow.

This uncertainty finds constant expression in medical literature; a particular writer reports a number of cases in which the results achieved by a given drug are favorable. It is followed within a short time with another report in which the same drug was given for the identical conditions, and no therapeutic results were reached. If all preparations were of the same strength, accumulated statistics would soon become valuable in settling the worth of drugs for the purpose for which they are used. The problems of the statistical methods in therapeutics are enormous at the best, and if the preparations used are of variable strength the confusion becomes worse confounded. It needs no extensive analysis of the literature to show the force of these statements; scarcely a medical journal can be consulted which does not show the confusion which has crept into medical literature from this cause alone. The last Pharmacopœia recognized the principle of standardization and applied it to opium, cinchona, and nux vomica. There is no reason why the same principle should not

be extended to the standardization of every drug which it is possible to exactly analyze. The chemist has perfected refined and accurate methods for determining the alkaloidal strength of many drugs. But unfortunately for the prestige of the chemical laboratory, there are certain very important drugs, whose use cannot be dispensed with, that are not amenable to chemical assay. For the sake of example we might mention digitalis, strophanthus, and Indian cannabis. The latter is perhaps the most variable member of the materia medica, and yet its therapeutic utility entitles it to an honorable place in the Pharmacopœia.

There is only one way in which these drugs, and others organically like them, can be standardized, and that is by actual physiological tests upon living animals. A given dose of a preparation of digitalis, proportioned to the body weight of the animal selected, should always produce a definitely uniform effect on that animal's organism. If it fails to do so, it is then an easy matter to bring that preparation up to the required standard of strength. If the oxytocic power of ergot were always determined upon pregnant animals before its administration to human beings, the physician would less frequently experience that keen and bitter disappointment which is so apt to engender theropeutic skepticism. The revision committee of the next Pharmacopœia may not, for obvious reasons, deem it expedient to embody the principle of physiological standardization in the coming edition of that classic volume. But the physician is bound, *in toto*, by the dictum of the Pharmacopœia. Owing to the enterprise of at least one American pharmaceutical house, physiologically tested preparations are now available. In our humble opinion, the medical man, in justice to his patient and to himself, should always insist on having only standardized drugs supplied upon his prescription; chemically assayed drugs, where a chemical assay is possible, and physiologically assayed preparations in every instance where it is not practicable to determine the therapeutic activity of the drug by the chemist's art.

The forthcoming revision of the Pharmacopœia presents problems of greater difficulty than those which have confronted the committee of any previous revision. A failure to recognize many of the animal extracts, particularly that of the thyroid gland,

and the serums generally, will not give satisfaction to the profession. The separation between the Pharmacopœia and actual practice has been widened, and a determined effort on the part of the committee should be made to bring the Pharmacopœia in line with advanced and advancing therapeutics. The matter of standardization of drugs is one of vital importance, and one which the committee of revision should undertake in no half-hearted manner. Absolute standardization cannot of course be reached, but an earnest attempt in this direction can be made, and it would be far better for the committee to err in going too far rather than by adopting a halting policy. A standardized preparation is far superior to one whose strength is not accurately measured; even approximate accuracy of standardization would be far better than none.

The importance of this subject is so great that we earnestly trust there will be a full and free discussion of the whole matter. The pages of *Medicine* will be open to communications upon this subject, and it is to be hoped that our contributors and subscribers will present their views upon every phase of this important topic.—*Medicine.*

[We will be pleased to have the views of any of our readers on so important and timely a subject. It is not alone necessary to know that in certain conditions a certain drug is needed, but to know how much—its exact character is alike important.—Ed. S. P.]

The Treatment of Leprosy.—Dr. Isadore Dyer was recently requested by the Orleans Parish (La.) Medical Society (June 9th), to review the subject of snake venom in the treatment of diseases, particularly its use in cases of leprosy. Snake venom, he said, had been used in the treatment of many diseases in an attenuated and dried form for one hundred years. It was supposed at one time to be most efficacious in yellow fever. About March, 1892, a Jamaica physician reported an instance of unusually rapid recovery of a case of leprosy in a man bitten by a viper. The case, one of tubercular leprosy, was cured in six weeks. The idea occurred to Dr. Dyer to procure an attenuated form of serum and try it systematically in leprosy cases.

After a study of the results of Fraser, Calmette, and others, who were preparing serums to be used in cases of snake bite, some of Calmette's antivenene was procured and treatment was commenced in five cases. One to three cubic centimetres was the daily dose, and this was continued for three months. The results, which were reported in detail in the New Orleans *Medical and Surgical Journal* for October, 1897, were striking. Of the five original cases, one, a policeman, who had marked trophic changes, is now (eighteen months later) without evidence of the disease and is working steadily. A carpenter, who was hardly able to dress himself owing to contractures of his hands, is at work and presents only a light bluish scar; two fingers have remained stiff owing to the nerve having been destroyed. In three other cases, all of atrophic type, the lesions quickly disappeared and no new developments have occurred.

The serum was given subcutaneously and dermatically, the dose varying from 1 to 11 c.c. The injections were made every second day at first; subsequently every day. For the most part they were made in the gluteal regions. Wherever local injections were made into individual lesions the lesions disappeared. Sloughs sometimes occurred, but healthy scars invariably resulted.

Dr. Dyer said that he is now using chlorate of potassium with gratifying results, and he makes it the basis of all treatment. The initial dose is gr. x. daily, which is increased to gr. cxx. or ccc. The latter dose is very seldom required. No serious effects have resulted from the large doses. A systematic treatment in this way of leprosy cases under hygienic conditions will result in a large percentage of cures. This can be arrived at only in special institutions, but the results wonld certainly justify any outlay in the direction.—*Medical Record.*

Important Decision in Regard to the Practice of Dentistry.—The Supreme Court has recently made a decision in reference to the registration of dentists in Rhode Island which closely affects the medical profession. A physician of Newport was indicted for contravening the law in that he practised dentistry without having first obtained a certificate from the board of

registration in dentistry, and without first having caused his name and place of business to be registered with the board. The defense was that at the time mentioned he was qualified to practice medicine and surgery by reason of the possession of a diploma from a reputable and legally chartered college, indorsed by the board of health, and therefore he had the right to practice medicine and surgery in all its branches upon all parts of the human body, including the teeth. Judge Tillinghast upheld this evidence, and in his opinion handed into the Supreme Court ends with the following words: "It has always been the custom in this State, and probably everywhere else, for physicians to treat ailing teeth, to extract teeth, and to perform various other professional services which technically come within the purview of dentistry. Physicians who reside in the country towns especially have always been called upon to a greater or less extent for the performance of such services, and to now prohibit them from thus treating their patients would be a source of great inconvenience and in many cases of extreme hardship and suffering to the latter, as well as an interference with the proper and legitimate functions of the former.—*Medical Record.*

THE ODOR OF RAIN.—Nuttall has determined that the smell of freshly turned earth is due to the growth of a bacterium, the *Clathodrix odorifera*, which multiplies in decomposing vegetable matter, and more rapidly in the presence of heat and moisture. Hence the odor is especially marked after a shower, or when moist earth is disturbed. In dry soil the development of the bacterium is arrested, but it is immediately resumed with vigor as soon as moisture is restored.—*Scientific American.*

MILDEW is one of the danger signals that nature hangs out. Whenever and wherever it is visible, be on your guard. It means calamity to all organic life. The only remedy is unlimited fresh air and sunshine.—*Scientific American.*

SCIATICA.—Give three to six drops of Norwood's tincture of veratum viride every three hours.—*Medical Summary.*

[illegible] ECLAMPSIA.—Howle reports a [illegible] premonitions, in a primipara eight [illegible] was in bad condition, stuporous, with [illegible] pulmonary edema; pulse 120, small, [illegible] chloroform was given by inhalation, but [illegible] continued. Veratum viride was then given [illegible] and the pulse improved somewhat. [illegible] manually, this being accomplished in [illegible] a still-born child delivered by version, [illegible] followed by Crede's method. The patient [illegible] unconscious, and recovered very slowly. She was [illegible] parts per 1,000 of dried albumen in the first [illegible] delivery. Resolution of the nephritis took [illegible] The postpartum treatment consisted of purga- [illegible] strict milk diet, and 10 minims tinct. verat. [illegible] chloral hydrate hourly. Recovery was per-

[illegible] was remarkable because of the association of rigid [illegible] narcosis, and because authorities generally [illegible] prognosis as hopeless when the symptom complex is [illegible] high temperature, profound cyanosis, stupor and [illegible] edema. Howle emphasizes the growing favor in [illegible] viride is held as a remedy for eclampsia.—*Lancet*, [illegible]

[illegible] treated *medically* and without surgical inter- [illegible] seems to be the demand of the hour. In an editorial in [illegible] *Medical Magazine* this reform is strongly com- [illegible] and the results of Carpenter, of Oneida; Hutton, of [illegible] and Kellogg, of Battle Creek, referred to approvingly. [illegible] Carpenter had been accustomed during a period of forty years [illegible] annually from five to twenty cases, such as are classed as [illegible] and without resorting to surgical measures in any of [illegible] he had only lost one case. He gives a sedative at the be- [illegible] when pain is severe, applies a poultice, and gives in so- [illegible] 1/10 grs. of corrosive sublimate and ¼ min. of aconite eve- [illegible] two hours. In some instances he began the treatment with [illegible] 10 to 20 grs. of calomel in one dose.

Hutton reports that in 100 cases of appendicitis he has not lost one, and although a surgeon, he operated on none. He gave from 2½ to 10 grn. each of sodium bicarbonate and calomel every hour for three or four doses, followed by a saline purge where necessary, and applied cloths wrung out of boiling water. When there was fecal impaction, he preceded or accompanied the treatment by copious enemata, continuing them until there was a complete unloading.

Kellogg cites six desperate cases in which all were saved by hot enemata to unload the bowels, three times a day or oftener, with the addition of turpentine and magnesium sulphate in obstinate constipation. Hot fomentations were applied every hour or two for fifteen or twenty minutes, followed by the application of towels wrung out of very cold water, and sometimes an ice-bag was kept over the seat of pain.

The writer refers to his own experiences, in which hot flax-seed-poultices were applied locally and 1-10 grs. of calomel given every hour or two, folowed by salines where necessary to open the bowels. None of his cases ended fatally, and two only were operated on. Under the treatment by calomel and poultices, begun early, he has seen many cases recover completely in four or five days. Having kept no record of the number of cases, he could not say how many he had thus treated, but should say about fifty. The editor closes by saying that such experiences as those of Carpenter, Hutton and Kellogg should encourage physicians who have been on the point of acquiescing in the new doctrine that every case of appendicitis is one for the surgeon from the very start, to attack the disease more energetically and hopefully with remedies which have proved so remarkably successful. Especially is this true when treatment can be instituted early; but whenever a case is not seen till it has already progressed to the formation of an abscess, or there are signs that one has formed in spite of the remedies, it is wiser to have a surgeon in attendance, thus dividing the serious responsibility, and affording greater hope of rescuing the patient in the event of a rupture into the abdominal cavity.

A wide distinction should be made between acute and chronic diseases as to their amenability to drug-treatment. Chronic invalids are often better off with very little or even no medicine,

relying upon hygienic, climatic and mechanical forms of treatment; but in many acute affections there is a golden time in the beginning when boldness in the use of appropriate remedies may work seemingly magical results.

Much of the appendicitis we have had during the past few years seems to have an epidemic character and to be associated with influenza. Such attacks are always acute and seldom recurrent. In these days the calomel-poultice-saline treatment may be the very thing needed, while in chronic recurring cases only operation is available. It is never wise to swing from one extreme to another. In using small doses of calomel, as referred to by the editor of the *Medical Magazine*, it is sometimes wise to add a little sodium bicarbonate thereto, particularly if the druggist who dispenses it is not over anxious to rub it up thoroughly. Sugar of milk is sometimes ordered with it, but this produces a gritty taste in the mouth. A good formula is:

Calomel	1 to 3 grn.
Sodium Bicarbonate	15 grn.
Powdered Sugar	20 grn.

Make 10 powders, and take one every hour or two till they operate.—*Merck's Archives.*

CALOMEL INJECTIONS into the thigh-muscles in cases of *elephantiasis* are reported as having produced good results by Dr. A. I. Pospelow, Professor of Dertamology and Syphilography at Moscow. He injects an oily mixture of three-quarters of a grain of calomel in 15 drops of vaseline-oil every four days. Swelling of the limbs quickly went down. In one case an ulcer of the leg speedily cicatrized so as to allow the patient to walk without difficulty. Neither of the two thus treated had had syphilis or tuberculosis.—*Merck's Archives.*

CONDITIONS OF SUCCESSFUL OPERATIONS FOR EPILEPSY.—At the German Congress of Surgery, held at Berlin, April 5–8, 1899, Kocher of Berne referred to the modern loss of confidence in these operations, as the formerly accepted percentage of 70 per cent. recoveries had been shown to be erroneous, and Graf and Braun's latest statistics claim only 2 to 4 per cent. cured. Comparing the ultimate results of various methods, it has been found that recoveries are much more frequent when the dura mater has been incised (14 per cent. immediate recoveries without, and 54 per cent. with incision of the dura mater). This fact confirms what he has always claimed, that epilepsy is due to a general or local exaggeration of the intracranial pressure. Opening the dura establishes a safety valve which regulates this pressure. He has witnessed cases in which mere incision cured not only the epilepsy but a spasmodic paresis. In his six cases of permanent recovery (over three years) he finds that the membrane over the trephined spot has remained soft and yielding, while in all the cases of recurrence the defect is closed with a hard, rigid substance. In eighteen cases of complicated fracture of the skull the soft parts were injured sufficiently to form a safety valve except in one case, and this was the only one affected with epilepsy. Epilepsy can be produced in guinea pigs by repeated slight blows on the head with a hammer, which increases the intracranial pressure; but if the dura mater is incised, it is impossible to induce epilepsy in this way. These facts explain the effects of cerebral cysts. In one case he had to keep a cyst drained for three years without an incision, by drilling through the skull and inserting the needle of an aspirating syringe. Other speakers corroborated his statements by their experience of recoveries persisting when the membranes had remained soft.—*Journal of Am. Med. Assn.*

ALOPECIA AREATA.—Granville McGowan, in the *Journal of Cutaneous and Genito-Urinary Diseases*, reports eight cases of alopecia areata, all treated with trikresol applications and with excellent results, cure being produced in all. The application was preceded by a thorough cleansing of the patch with benzine; the pure remedy was applied to the scalp and well rubbed into the denuded patches and into the hair for half an inch surrounding

[illegible] which usually passes away [illegible] The skin turns pearly white [illegible] sebaceous follicles seeming to gap. [illegible] few hours by circumscribed by- [illegible] area. On the scalp there is very [illegible] When applied to the face there [illegible] escation. Within twenty-four hours [illegible] superficial scale forms, which falls in [illegible] new application is required. The [illegible] and the application should not be so [illegible] When applied to the face, the trikresol is [illegible] of 50 per cent. with alcohol. The av- [illegible] is about two and one-half months.— [illegible]

[illegible] INOPERABLE CANCER.—C. H. Fraser (*Amer. Medical Sciences*, May, 1899) says that of all the [illegible] been suggested in the treatment of inoperable [illegible] has had sufficient trial to warrant its recognition. [illegible] of erysipelas and bacillus prodigiosus have [illegible] by Coley himself in 148 cases, and by other ob- [illegible] cases. Of the 148 cases the treatment may be re- [illegible] markably successful in 24, or 15 per cent.; and of the [illegible] cases, 26 disappeared completely. Two others de- [illegible] much that only an insignificant node was left. These [illegible] sufficient to warrant this form of treatment to be pur- [illegible] strictly inoperable cases. Unfortunately but little [illegible] been obtained in its application to cancer proper, the [illegible] being reported in cases of spindle-cell sarcoma. The [illegible] have been used a short time after operation with some [illegible] success as a prophylactic measure. The treatment at [illegible] on a logical and scientific basis, and inasmuch as so [illegible] have already been recorded in which there has been [illegible] in three years, it cannot be ignored by the profes- [illegible] *Medical Age*.

[illegible] WHAT AGE IS A MAN IN FULLEST VIGOR?—A German [illegible] who undertook to settle this question, and incidentally

others more or less nearly related to it, and in doing so made a vast number (upwards of [illegible]) of experiments, using a dynamometer of his own device, has recently published his results. Graphically presented, the mean force of a man of healthy constitution is nearly a parabola, but very irregular in shape, the apex of which is reached at about 31 years, indicating that at that age one is in the enjoyment of his fullest physical strength and vigor. The average adult of 17 years can barely raise a weight of 126 kilos (about 250 pounds). At 20, his dynamometric force is increased to 144 kilos (or 283 pounds, about). At 31 the force is raised to 200 kilos, or 400 pounds. From this year on there is a gradual decrease, until at 40 the dynamometer marks 153½ kilos (or, say, 306 pounds); at 50, 148½ kilos; and at 60 but 112 kilos. The author made numerous dynamometric tests of African negroes in their native countries, and contrary to all expectations, even the most vigorous warriors were found to be inferior to the average run of white men, while individuals among the latter made records from two to three times greater than the best negro records.—*National Druggist.*

TREATMENT OF SURGICAL TUBERCULOSIS.—Hoffa (*Lancet*, April 8, 1899) draws attention to the treatment of tuberculous affections of the bones, joints, glands and skin by inunctions of soft soap, a method which he has applied during the last twelve years in more than 200 cases. Other means, such as injections of iodoform, plaster bandages, etc., must of course not be neglected, but he found them more efficacious when they were combined with the use of soap. The patient's general state and appetite improved, and multiple tuberculous affections of the bones and joints healed completely. It is essential to use a very good quality of soap, of which from 25 to 40 grammes is rubbed on the body from the neck to the thighs two or three times a week. After fifteen minutes the soap may be wiped off. The inunction is most conveniently done in the evening, as the patient ought to remain in bed for some hours afterwards. The soap is said to act by its strong alkalinity, for on becoming absorbed it neutralizes the lactic acid of the organism, the increased alkalinity of the blood stimulates metabolism, and in this way improves the

general nutrition. An increased quantity of urine is passed during the treatment. A great advantage of this method is its cheapness, which makes it specially useful for poor persons, for whom good food, sea air, and other therapeutical resources are not available.—*Medical Age.*

THE TRANSPLANTATION OF TISSUES.—One of the most fascinating chapters in pathology is that dealing with the grafting of tissues, either from one part to another of the same organism or from animals of the same or differing species. The amount of work that has been done on these lines is something enormous, but on the whole, it is fragmentary, and some great genius is needed to gather up the separate facts and formulate the the laws which govern the growth of transplanted tissues in both the animal and vegetable kingdoms. The acunae in our knowledge of these processes ought easily to be bridged by experimental work upon animals, as it is a subject which is largely to be solved by experimental methods. Behavior of different tissues when transplanted is strikingly variable. The transfusion of blood which has been clearly shown to be ineffective, even in the same species, is nothing but a transplantation. Why epithelial structures should assimilate foreign nutrition and grow while the blood cells do not, is an unsolved problem, the correct understanding of which would throw much light upon pathological processes.

In a recent article, Reuben Peterson, in the *American Journal of the Medical Sciences*, for April, 1899, describes a case in which the sciatics of a dog were transplanted successfully between the severed ends of the median and ulnar nerves of a man. He gives a list of nineteen other cases in which similar transplantation has been made; in the majority the sciatics of a dog were employed. The defects to be bridged in these cases varied from two to three centimeters to nearly four inches. In most of the cases a marked improvement was noted, and some can be said to have recovered. Peterson comes to the following conclusions regarding the value of nerve transplantation:

1. Transplantation of a peripheral nerve segment to bridge over a gap between the two ends of a resected nerve is a legitimate surgical precedure.

2. Under favorable conditions, at least partial, and at times complete, restoration of sensation may be expected to follow the operation.

3. Regeneration of the degenerated peripheral end is due to the downgrowths from the axis-cylinders of the central ends.

4. As this process is slow, a long time must often elapse before favorable results are shown.

5. Sensation may return very early after operation, and, as a rule, precedes return of motion.

6. This rapid return of sensation is not due to down-growth of axis-cylinders or to conductivity of the transplanted fragment, but must be explained by collateral nerve-supply.

7. In many cases very early return of motion after transplantation may be due to the vicarious movements of other muscles than those formerly paralyzed, and not to a regeneration of the latter's nerve supply.

The last two conclusions of Peterson would seem to be very vaguely expressed. It is difficult to say just what he means by "vicarious movements" of other muscles than those formerly paralyzed. It seems to us that he forgets a very obvious fact in most of these cases, that the nerves are involved in a cicatrix and subject to more or less pressure. This may be sufficient, upon certain nerve fibres, to keep them out of function for a long time and not of a degree to cause degeneration. The relief from pressure, due to freeing these nerve fibers would account for the sudden improvement in some of the partly paralyzed muscles immediately after operation.—*St. Louis Medical Review.*

Editorial.

THE NEW BUILDING OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF TENNESSEE.

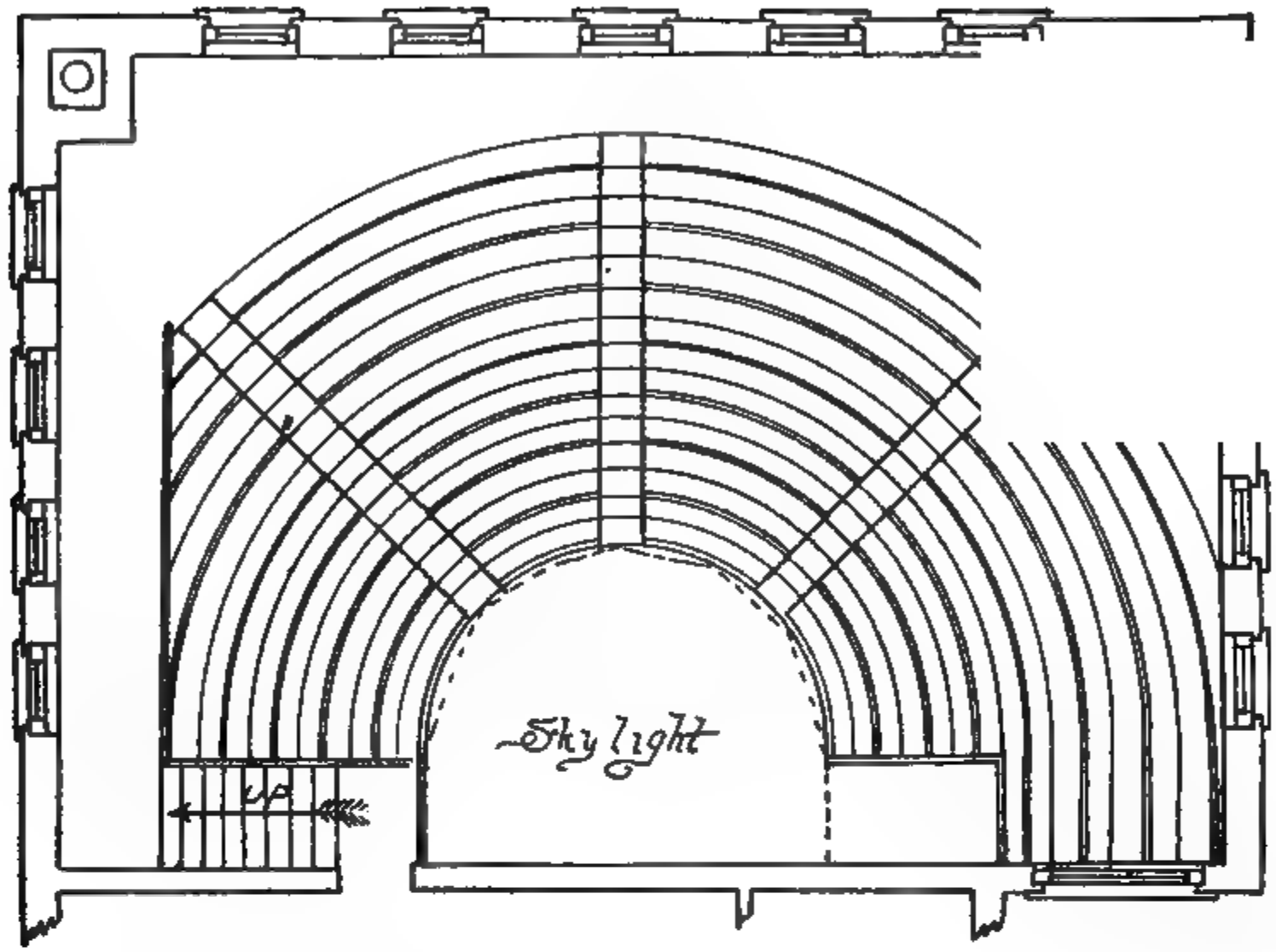
Fire is a purifier, and as a rule results in improvements and better-m e nts when occurring in cities and towns. This is markedly demonstrate by the magnificent building that is now rapidly approaching completion, and will be ready for occupation by Sept. 1, prox., on the site of the former building of the Medical Department of the University of Tennessee, that was destroyed by fire on the morning of Friday, Nov. 11 ult. This live and enterprising faculty, with the advantage of practical expe

reason in erecting their former building just eighteen years ago, and a close and critical observation of the new buildings more recently erected for the other two medical schools in this city, have left nothing undone in constructing one of the best, most improved and thoroughly practical buildings for medical teaching in the South. The new building occupies nearly the entire area of the lot owned by the faculty on the north side of Broad street, between High and Vine streets, and is 55 feet wide, 110.8 feet in length, and four full stories high. In front on the ground floor are the Dean's private and reception rooms, the Dispensary and patients' waiting rooms, and a large library for the students. In the rear is the Medical Amphitheater, with an elevation of 14 feet, well ventilated and lighted, and with a seating capacity of 400 students. On the second floor, in front, is the Chemical Laboratory, 37 feet wide and 68 feet long, fitted up with every modern apparatus for teaching medical chemistry. To the right of the Chemical Laboratory is a medical lecture room, with a seating capacity of 200 students. On the third floor, in front, is the Bacteriological and Microscopical Laboratory, 37 feet wide and 58 feet in length, fitted up with every modern means used in teaching this intricate subject. To the right of this laboratory is the Surgical Laboratory, with a capacity to accommodate 150 students. In the rear of this floor is the Clinical Amphitheater, with a skylight over operating table 18x30 feet, well lighted and ventilated, with elevation of twenty feet, and a capacity for 450 students. On the fourth floor are the Dissecting Rooms, consisting of crematory, large hall, and fourteen separate rooms, thus enabling each class to be shut out of the noise of other classes and grasp this, the groundwork of a medical education. Connected with this floor is an anatomical room, with bones, charts, etc., all of which are at the disposal of the students. The entire building is heated by steam and lighted by both gas and electricity.

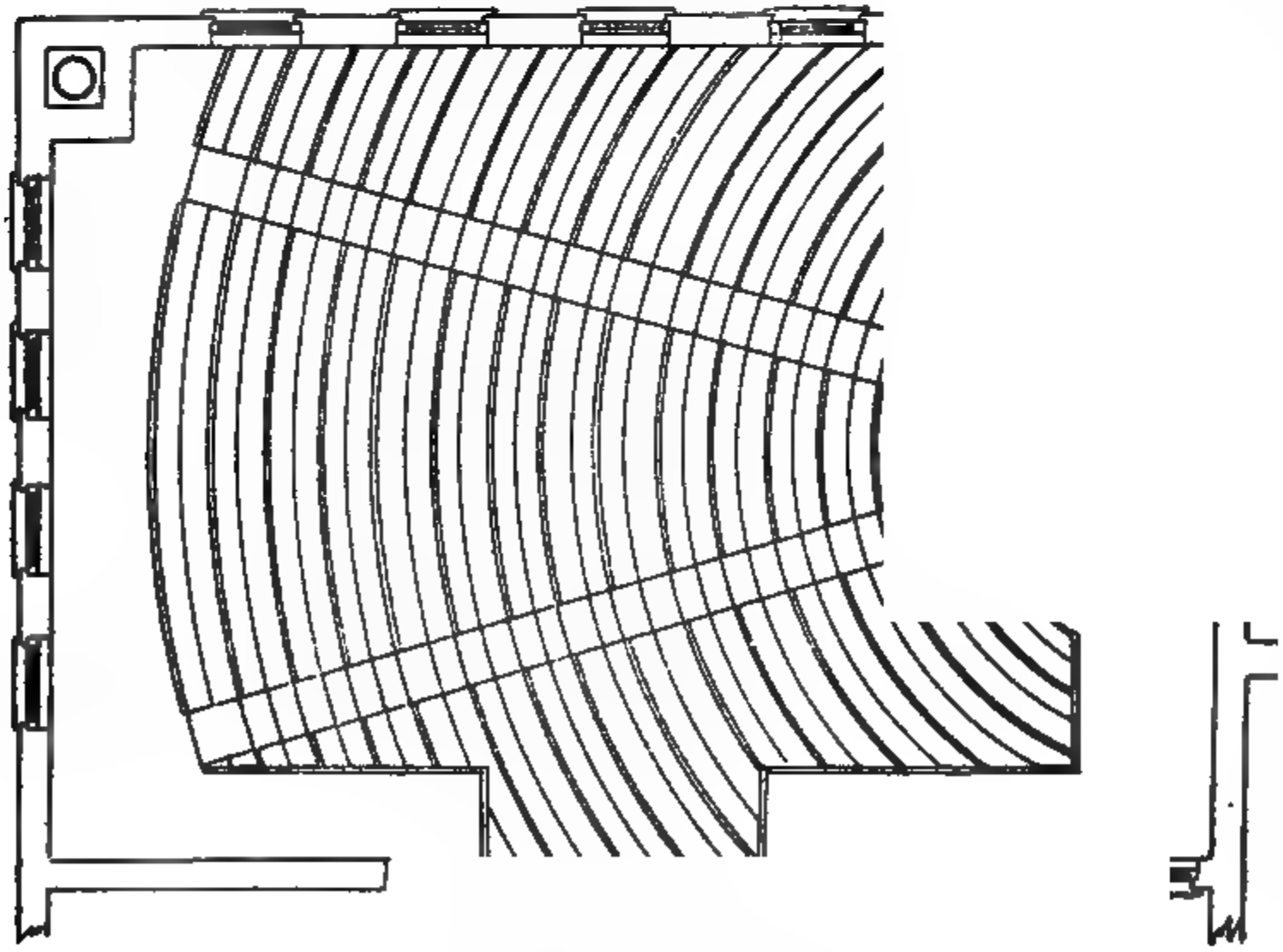
With the splendid clinical advantages of the City Hospital, to which it furnishes each year one interne from the graduating class, the County Asylum also one interne from the graduating class, and the College Dispensary, for which two internes are selected from the middle class, afford advantages for medical instruction equal to any institution North or South. Their clinical advantages, which have been so abundant at their Free College Dispensary, located in the very heart and center of the city, will be greatly enlarged and utilized to the fullest advantage, the students thus having full benefit of physical diagnosis, special operative work, and examination of patients.

The Department of the Diseases of Women is one of the most interesting fields for clinical teaching, the Professor holding weekly clinics at which the patient is examined by each student under his personal supervision. The material for instruction is varied and abundant. The clinical room has been constructed with a special view to convenience, and every facility is afforded the student for the practical study of this important class of diseases.

NEW BUILDING OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF TENNESSEE, REBUILT A. D., 1899.



CLINICAL AMPHITHEATRE OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF TENNESSEE.



GENERAL LECTURE HALL OF THE MEDICAL DEPARTMENT UNIVERSITY OF TENNESSEE.

In the Department of Surgery there will be a great number of diseases and injuries furnished for observation and diagnosis, their peculiarities explained, the proper treatment prescribed, and surgical operations performed in the presence of the class.

In the Department of Practice of Medicine, during the medical clinics, the student has the opportunity of examining interesting and instructive cases personally. Practical bedside instruction is made prominent in the course, the classes being taken in sections through the hospital.

In the Department of Ophthalmology, etc., operations are performed in the presence of the class, and the utmost facility is afforded for observing and studying all normal and morbid conditions relating to the eye, ear, nose, and throat.

The Department of Obstetrics. As many advanced students as possible have one or more cases of midwifery allotted to their exclusive care, with the privilege of summoning the professor of obstetrics to their assistance should difficulty arise.

The clinical work will be under the following supervision: Surgical, Prof. Paul F. Eve, M.D.; Medical, Prof. Wm. E. McCampbell, M.D.; Diseases of Children, Prof. Wm. D. Haggard, M. D.; Gynecology, Prof. William D. Haggard, Jr., M.D.; Ophthalmology, Otology, etc., Prof. Hilliard Wood, M.D.; Genito-Urinary and Venereal Diseases, Prof. James W. Handly, M.D.

In addition to the *interneships* above mentioned, the following paragraph from the *Nashville Daily American* of July 15th, will be of interest to all who may avail themselves of the magnificent advantages offered by the Medical Department of the State University:

"In a letter to President Dabney, Secretary Wilson, of the United States Department of Agriculture, invites all the scientific graduates of the University of Tennessee, as one of the Land Grant colleges under the National Government, to register with the Civil Service Commission for positions as "Scientific Aids" in his department. The object of this invitation is to give such graduates the opportunity to pursue their studies in the scientific laboratories of this great department. The department does not engage to take more than a limited number at present, but hopes to build up a list of those thus employed in the early future. No examination is required, only a statement of the college course, degree, special qualifications, with copy of graduating thesis, and other papers illustrating the scientific work of each man. The salary will be $40 per month; and the time of service limited to two years. This is equivalent to a fellowship for special study. Limited service in the line of their special training will be required of those appointed, and fine opportnnities afforded for study and investigation.

This is the first time, as far as known, that the Civil Service Commission has ever accepted the diploma of any institution in lieu of examination. It applies to no institution in Tennessee except the State University."

ALKALOIDS AND GLUCOSIDES—SHOULD BOTH BE STANDARDIZD.

The question whether glucosides as well as alkaloids should have standards of potency fixed for them in the forthcoming revision of the American pharmacopœia has been the subject of considerable discussion since the recent meeting of the American Medical Association at Columbus, Ohio. Delegates were then appointed to serve on the committee of revision, which will meet in Washington in the spring of next year; and the necessity of recognizing physiologically as well as chemically tested drugs was strongly urged upon them by most of the speakers who took part in the interesting and lively discussion which followed the reading of a paper on the subject by Dr. A. W. Wainwright, of New York. The debate was introduced by Dr. Waugh, of Chicago, who came out as the doughty champion of the purely chemical assay. Only alkaloids, he contended, had any claim to recognition, inasmuch as they alone had positive values. Most of the other speakers, stirred to action by Dr. Waugh's enunciation of these doctrines, took the opposite side of the argument, and gave utterance to their views with a freedom and force that made the proceedings of the Materia Medica section for a time singularly animated. Drs. Butler, Chicago; Christie, Omaha; Eccles, Brooklyn; Hare, Philadelphia; and Stewart and Wilcox, New York, presented a solid front in favor of the recognition of physiologically tested drugs. Incidentally reference was made to one large house of manufacturing chemists, which makes a point of conducting pharmacological experiments in its own laboratories with a view to seeing that all the glucosides it sends into the market are of a certain standard, derived through physiological test. If drugs like canabis indica, ergot and gelsemium should for one reason or another be left unstandardized in the pharmacopœia, physicians would have no alternative when they wanted drugs of particular strength—and they never have occasion for any other—but to specify the firm whose preparation they insisted on having. Those who are opposed to specification of this kind would do well to consider whether it would not be better to have a general standard fixed for all the drugs in question. One thing, at all events, is certain, that the public will not long submit to being made the victims of the present haphazard system, under which it altogether depends on such accidental circumstances as where a prescription is made up, from which firm the druggist obtains his drugs, and what test if any the firm in question applies to the raw material, whether the active principles it represents are 20, 40, 60 or 80 per cent. So far the public is largely in the dark upon this subject, but at any moment a flood of light may come, If headway is to be made agaiust quackery and the kindred evil of self-prescription, it will be necessary for medical men to take more active part than they have hitherto done in the determination of such important matters as the fixing of standard for drugs.

"THE TUBERCULOUS OSCULATION.—By following the rule of going away from home to get the news, we learn from one of our English contemporaries that "it has been found necessary in some parts of the United States to direct the attention of the legislatures to the desirability of prohibiting indiscriminate kissing, not, it would appear, in the interests of public morality or in deference to the susceptibility of the American Mrs. Grundy, but with a view of checking the spread of tuberculosis." The journal goes on to say that either the tubercle bacillus must possess unaccustomed virulence in the Western hemisphere or else kissing must be unduly and indeed unnecessarily prolonged. We have read somewhere a saying, apparently English in origin, that a thorough and comple kiss must last seven minutes by Shrewsbury clock, but have not heard of this being put in practice in this country. It is certain, however, as our English contempory remarks, it will be one thing to prohibit indiscriminate kissing and another to enforce the veto, and we certainly agree with it that it is a lack of good taste to couple kissing and spitting together as nuisances, as it credits the American tuberculophobist with doing. It is to be feared, however, that it has been imposed on in this instance. If kissing has to be sacrificed for the sake of getting rid of tuberculosis, we opine that the latter will stay.—*Journal of the Am. Med. Association.*"

"Well! well! well! Can such things be and overcome us like a summer's cloud."

"Kiss rhymes to bliss, in truth as well as verse;
What pity 'tis, it ever ends in something worse."

Or

"Kiss rhymes to bliss, in sound as well as letter;
But ah! the beauty is, it ever ends in something better."

"Mr. Showman: Which is the gyrascutus and which is the pyretiolami?" said a little girl.

"Vell, my little dear, vichever you likes; you pays your money and you takes your choice."

THE WILLIAM F. JENKS MEMORIAL PRIZE.—The Fifth Triennial Prize of five hundred dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Various Manifestations of Lithæmia in Infancy and Childhood, with the Etiology and Treatment."

The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that "the Trustees under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper

be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said Trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia."

The prize is open for competition to the whole world, but the essay must be the production of a single person.

The essay, which must be written in the English langurge, or if in a foreign language, accompanied by an English translation, must be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1991, addressed to Richard C. Norris, M.D., Chairman of the William F. Jenks Prize Committee.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

JAMES V. INGHAM, M.D.,
Secretary of the Trustees,
N. E. corner Thirteenth and Locust Streets, Philadelphia.

THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION will hold its Ninth Annual Meeting at Washington, D. C., September 19, 20, 21, 1899. The President, Dr. F. B. Bishop, appointed the following Committee of Arrangements:

Drs. D. Percy Hickling, Chairman; Jos. Taber Johnson, G. Lloyd Magruder, Z. T. Sowers, Robert Reyburn, G. Betton Massey, Charles R. Luce, Elmer Sethoron, Llewellyn Eliot, Clifton Mayfield.

Willard's Hotel has been chosen for the headquarters, and special rates have been made for all interested in this meeting.

Many able papers have been promised, and a very successful scientific meeting is assured. There will be a large and varied exhibition of Electro-Therapeutic apparatus in Willards' Hall during the meeting of the Association. Willards' Hall is well adapted for this purpose, as it not only adjoins the headquarters, but communicates with it by a corridor, there is also a large entrance directly from the street. The committee also promises a very pleasant social program, including a reception by the President of the United States. an excursion to Mt. Vernon, Arlington and Alexandria—a buffet lunch to be served at Alexandria—an evening visit to the Congressional Library, to be viewed under electrical illumination. Provisions have also been made to visit the War, State and Navy Department, the United States Treasury, and other public buildings.

f diarrhea are associated with the growth and multipli- rganisms which induce intestinal fermentation, and con- tation from decomposing food products.

tic indications in these cases are clear, viz: check intes- on, neutralize acidity, and overcome the existing atonicity inflammation of the intestinal mucous membrane. Lauder aks highly of the value of glycerine as an intestinal anti- combination with digestive tonic alteratives and antacids, as y's Glycerine Tonic Comp., it fulfills all the existing indica- : moreover promotes the digestion and assimilation of food so normal nutritive processes are speedily re-established. It is of ar value in diarrhea occurring in people of impaired vitality, as only cures the intestinal disturbances, but it also restores tone to feebled system.

SIGHT-SEER'S HEADACHE.—There are, no doubt, very many important uses for antikamnia, of which physicians as a rule may be uninformed. A five grain antikamnia tablet prescribed for patients before starting on an outing, and this includes tourists, picknickers, bicyclers, and, in fact, anybody who is out in the sun and air all day, will entirely prevent that demoralizing headache which frequently mars the pleasure of such an occasion. This applies equally to women on shopping tours, and especially to those who invariably come home cross and out of sorts, with a wretched "sight-seer's headache." The nervous headache and irritable condition of the busy business man is prevented by the timely use of a ten grain dose. Every bicycle rider, after a hard run, should take two five grain tablets on going to bed. In the morning he will awake minus the usual muscular pains, aches and soreness. As a cure and preventive of the pains peculiar to women at time of period, antikamnia is unequaled and unaccompanied by habit or unpleasant after-effect. If the pain is over the lower border of the liver, or lower part of the stomach, or in short, be it headache, sideache, backache, or pain of any other description caused by suppressed or irregular menstruation, it will yield to two five grain tablets. This dose may be repeated in an hour or two, if needed.

"G. T. Q." might be understood to mean "get there quick," but from the efficacy and eligibility of "*Grove's Tasteless Quinine*" it will doubtless soon be recognized as the initials of an *anti*-malarial that is both certain and quick. Grove's Tasteless Quinine is made from pure quinine procured from the well known laboratory of Powers & Weightman. One and one-fourth grains being equivalent to one grain of the bitter sulphate. The new process which the inventor of this preparation, to whom the medical profession and the world are also indebted for its admirable predecessor, Febrilene, after nearly a quarter of a century

of careful and laborious study and experimental work, has discovered, does not change the medicinal properties of this important alkaloid of Peruvian bark in the least. It is simply palatable. It is more soluble in the stomach than Quinine Sulphate when incased in coated pills or capsules. The former often fail to dissolve, the latter occasionally. The bitter principle is not eliminated but is simply tasteless, being insoluble in the mouth, but dissolving readily in the stomach. Both chemical and physiological observation and tests show its equivalent proportion of one and one-fourth grains to Quinine Sulphate one grain. Write to The Tasteless Quinine Co., Asheville, N. C., for further information and samples.

THE MELLIER DRUG COMPANY, of St. Louis, have recently mailed to the entire medical profession of the United States a handsome engraving of "The First Meeting of the Medical Society of London held in 1773," together with a circular mentioning every one of the members whose portraits are presented in the picture and stating in what particular line each was pre-eminent.

This engraving should prove an interesting and attractive addition to the walls of every physician's office, and if through an oversight any physician failed to receive a copy or if his copy was damaged in transit, one can be obtained gratis by applying to the Mellier Drug Company, 2112 Locust street, St. Louis, Mo.

IN UNION THERE IS STRENGTH.—By the combination of drugs their therapeutic properties and chemical value are materially enhanced. This has been demonstrated by the Walker-Green Pharmaceutical Co., of Kansas City, Mo., in their Elixir Six Bromides, for Nervousness; Elixir Six Hypophosphites, for Debility; Elixir Six Aperiens, for Constipation; and Elixir Six Iodides, for Blood Impurities. We don't ask you to try all of these new standard preparations—just try *one*, and then you will be more than willing to try the others without asking. "Good wine needs no bush."

A USEFUL PRESENT.—W. R. Warner & Co., of Philadelphia, New York and Chicago, are distributing free to doctors and druggists, a very complete list of drugs, giving apothecary and metric doses. They are arranged in convenient columns and printed on coated linen cloth, size 22x14 for hanging at the prescription counter or in the doctor's office for ready reference. It will be sent to any doctor or druggist upon request. Drop them a postal for it.

SANMETTO ALWAYS RELIABLE IN STRENGTH.—I have one word of praise to say for Sanmetto, viz: that the last bottle gives the same re-

sults as the previous one, or in other words, Sanmetto is always reliable in strength. MARK C. MYERS, M.D.

Kansas City, Mo.

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Reviews and Book Notices.

NEW BOOKS.—The following new books are now in press and will be ready for issue by Sept. 1st, prox., by Mr. W. B. Saunders, 925 Walnut street, Philadelphia.

The International Text-Book of Surgery. In two volumes. By American and British authors· Edited by J. Collins Warren, M.D., LL.D.

A Text-Book of Embryology. By John C. Heisler, M.D.

Diseases of the Nose and Throat. By D. Braden Kyle, M.D.

The Treatment of Pelvic Inflammations through the Vagina. By W. R. Pryor, M.D.

The Hygiene of Transmissible Diseases, their Causation, Modes of Dissemination, and Methods of Prevention. By A. C. Abbott, M.D.

A Manual of Diseases of the Eye. By Edward Jackson, A.M., M.D.

The International Text-Book will present a complete treatise on the theory and practice of surgery in its most advanced aspects. There is a real need among practitioners and advanced students for a work on surgery, encyclopedic in scope, yet so condensed in style and arrangement that the matter usually diffused through four or five volumes shall be given in one half the space and at a correspondingly moderate cost.

In his Pelvic Inflammations, Dr. Pryor directs the attention of the general practitioner and specialist to a surgical treatment of the infectious pelvic diseases of women. The subject is a most important one, insomuch as inflammatory lesions constitute the majority of all pelvic diseases.

Kyle on the Nose and Throat, Heisler's Embryology, and Jackson's Disease of the Eye are practical text-books for students, written by men of long and successful experience as teachers of these branches.

Special features of Dr. Kyle's book are the logical classification of of the diseases, the modern pathology illustrated with new and orininal cuts, and the extended consideration given to details of treatment.

Abbott on Transmissible Diseases, is an important and timely contribution to the literature of preventative medicine.

[illegible] Treatment [illegible] of the [illegible] revised and [illegible] A.M., Phy- [illegible] Throat and Nose [illegible] Philadelphia, Pa. [illegible] Medicine of [illegible] important- [illegible] Price, net, [illegible] Philadelphia, Pa.

[illegible] is immense; [illegible] appreciate the Al- [illegible] subject matter is [illegible] We have [illegible] critical review, yet [illegible] to elicit a marked [illegible] satisfactorily maintained [illegible] consideration. In concluding [illegible] Finally, if the present [illegible] physicians in the management of [illegible] known as pulmonary tuberculosis, or phthisis pulmonalis, and if through my confreres, the general and family physicians, the public will learn at last that consumption is, indeed, the most preventable and curable of diseases, I shall feel that my labors in the field of modern phthisio-therapy have not been in vain."

HINTS IN PRACTICAL URINALYSIS, with Etiology and Symptoms of Some Important Genito-Urinary Diseases. By CHAS. T. YARBROUGH, M.D., formerly Professor of Chemistry and Urinalysis in Tennessee Medical College. Second Edition, revised and enlarged. 12mo, cloth and paper, pp. 74. FREDK. STEARNS & CO., publishers, Detroit, Mich.

Urinalysis is a most important aid to diagnosis, only too much neglected by the average practitioner. Dr. Yarbrough, now Therapist for the Scientific Department of Messrs. Fredk. Stearns & Co. of Detroit, has prepared this little treatise for the every-day use of the general practitioner and has made it extremely simple and practical. Any physician requesting it will be furnished with a copy of the work [illegible] free of ch[illegible]

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Original Communications.

SUGGESTIVE THERAPEUTICS.*

BY J. T. M'COLGAN, M.D., OF ARCOT, TENN.

If an unprejudiced philosophic being from some other sphere were to gaze calmly over the whold field of therapeutic endeavor as presented in this little world of ours, he would be pardonable if he arrived at the conclusion that he was contemplating the actions of totally irrational and irresponsible idiots. He would see doctors of every shade and color of belief, professing the most opposite methods of curing disease and each presenting a volume of testimony in proof of his success that would bewilder the judgment of Radamanthus himself. The Regular can present hundreds of cures in which the Homœopath failed, the Homœopath retorts with just as many cures where the Regular was un-

*Read Before the Upper Cumberland Medical Society at Gainsboro, May 3, 1899.

successful; while the Eclectic with a broad grin gleefully relates how he has cured his hundreds that both the other schools had given up to die! Nor does it stop here. The Indian Doctor, the Spiritualist, the Christian Scientist, the Osteopathist and the Patent Medicine Man can show thousands of certificates of cures where all three of the great schools have failed, and you not unfrequently meet the man who having unsuccessfully run the gamut of regular, irregular, quack and patent medicine, was cured at last by carrying a buckeye in his pocket, or a rabbit's foot around his neck!

Then if we turn from a survey of the general field and take a glance at our own particular part of it, we will discover the same mass of cures by the same opposite and incongrous means. Look over the pages of half a dozen medical journals where regular M. D.'s report their cases for the edification of their confreres and you will be utterly bewildered by the testimony they present. One sedates, another stimulates, while a third expectates, all for the relief of the same pathologic condition, and all cure. One has a routine treatment, another a systematic treatment, while a third fires away promiscuously with all the proprietary nostrums he sees advertised—but they all cure. Nor is our practice more discordant than our theory. For over a century we have pilloried the disciples of Hahnneman for preaching "*similia similibus curantur.*" To-day, we inject tuberculine for tuberculosis, antitoxine for diphtheria and never suffer a qualm for the "eternal fitness of things," or shed a tear for the lost jewel of consistency. For fifty years we have fought Eclectics for holding to specific medication, and to-day our journals are not only filled with, but supported by advertisements of proprietary specifics for "every ill that human flesh is heir to," from consumption to corns. Do not understand me as attempting to criticise the professor or throw a suspicion of a doubt on the authenticity of the results reported. I only state the facts of the case and conversant with these apparent contradictions and inconsistencies I am far from believing that medicine is a humbug and its practitioners unconscious frauds. I am willing to concede still further; that Homœopath, Eclectic, Indian Doctor, Patent Medicine Man, Faith Curists, Granny with her "yarb bag" and the man with the rabbit's foot are all sub-

stantially correct in their reports of cures and their certificates for the most part genuine; and I do this, not because "living in a glass house myself I am afraid to throw stones," but because true science seeks not to negate phenomena, but to explain them, truth never shuns the freeest and fullest investigation. The true scientist is never a sceptic, it is only the immature mind that wraps its shuddering eye in the mantle of dogmatism, and flatters itself that an unqualified denial is a logical answer.

Then the question arises: How are these innumerable contradictions and incongruities to be reconciled, for reconciled they must be after having admitted them as facts? Now, right here we must not allow ourselves to fall into the very common error of confounding cause and effect. We have only admitted the *cures* as facts, not the means used as the cause *per se*. And we now propose to affirm that neither regular, irregular or quack, specific medicine, patent medicine or rabbit's foot, have ever in a single instance cured a disease; that the patient always cures himself and the doctor's influence when properly exerted does not force the patient to cure himself, but induces him to allow natural reparative processes to have full sway and cease intermeddling with their operations. It is the natural effort of every physical organism to throw off disease, to repair waste tissues, to build up and renovate. It is food, air and sleep, not medicine, which gives energy to the body, and on this energy depends the restoration of the body to health; but when the whole energies of the organism are centered on the effects of the disease there are none left to remove the cause.

Man is a compound organism composed of billions of living protozoon cells which have formed a copartnership to carry on nutrition and respiration on a grander scale than they could do separate, they having agreed to a division of labor and eventually co-operate in the performance of this task. One class of cells preside over all the others and then further subdivide their work and are divided into two general classes; one which looks out and superintends the relation of the organism with the outside world and one which presides over the interior economy. Other cells are wholly engaged in transmitting sensations, others in locomotion, others in preparing nutriment, others in removing effete or waste matter from the organism and still others in the

procreation of species. When all these citizens work harmoniously health is the result, when there is a failure of any class to do their part, there is disease.

The brain cells are aristocrats of the community and have the power conferred on them to direct not only all the movements of the organism, but to control all its energies of whatsoever nature. The activities of these cells we call the mind, and to distinguish between the two great divisions, we call one the objective mind, and the other the subjective mind; each possesses a consciousness peculiar to itself and they act very much like two separate and distinct minds. The objective mind not only controls the activities and intercourse of the organism in its relations with the outside word, but also has a limited authority over internal matters as well, and often uses this latter authority in an arbitrary and despotic manner; a great many functional diseases are due to the officious intermeddling of the objective mind with purely subjective activities. The subjective mind is independent of the five physical senses and perceives by intuition. It presides over what we term involuntary activities, is the seat of the emotions and the storehouse of memory. It performs its highest functions when the objective faculties are in obeyance. The objective faculties being the outgrowth of man's experiences and physical necessities are his guide in the struggle with material environment and act solely by reason. The subjective mind is incapable of inductive reasoning and acts solely by suggestion either from the objective mind or from some outside force; it draws its conclusions not from comparing surrounding facts but from the storehouse of memory.

The source of a great many errors with medical men of all schools is the failure to differentiate between physical and psychic states, we are prone to run to extremes and become either too materialistic or too spiritualistic in our views. The first leads to unreasonable scepticism, the second to superstition and credulity. The medical profession of this generation are materialists to a large degree and this leads them to ignore many plain facts and draw false conclusions from others. Take for instance pain, something the doctor is always treating, hearing of, or suffering. The most common view of this phenomenon is that it is a physical state and our literature abounds with such mislead-

ing language as "physical pain," etc. When the truth is that pleasure and pain are both psychic states. Physically there is not the slightest difference between the sensations which our objective consciousness translates as pleasurable and those it translates as painful—tickle the genitalia and it is translated as pleasant, do the same to the bottom of the feet and it is translated pain. Put the objective consciousness in abeyance by hypnosis and we can by suggestion have the same sensation translated either as painful or pleasant. Sensations are impacts of motion with the sensative nerve endings. Through a long series of experiences transmitted by heredity, we have learned to translate to our objective consciousness all impacts detrimental to the fundamental instincts of self preservation and preservation of species as painful, and these range in intensity from mere indifference to the most extreme agony. On the contrary, those impacts which conserve to promote the welfare of the organism or the perpetuity of species, we translate as pleasurable, and these also range from indifference to the most ecstatic raptures. Impacts may be external or internal, may be carried to the brain by any of the five senses, and even after the impact ceases the sensation may continue by concentration of the mind on the spot which serves to stimulate the continued activity of the nerve, and it will indefinately transmit memory sensations with all the intensity of real ones.

Obviously the rational treatment of pain should be to remove the impact first; if this is material, material remedies should be employed, then modify the results which are psychic, by psychic means. All functional activities are subject to psychic control; innervation is the force which keeps in motion circulation, secretion, nutrition and respiration, and this innervation is the activities of the brain cells. This is well demonstrated in the hypnotic somnambule. Any part of his body can be conjested by mere suggestion, any secretion increased or diminished by the same means; nutrition and respiration are alike excited or diminished, the temperature may be increased or diminished four or five degrees and innervation depressed or exalted from extreme catalepsy to the strength of ten men. These facts are much better attested than the physical action of any of the material remedies we possess, but they, like our material remedies, are mostly employed empirically in the treatment of disease, conse-

quently like them they have scored some brilliant successes and met with many failures. It is the province of scientific medicine to take these facts out of the domain of empiricism, out of the hands of wonder-mongers, charlatans and quacks and utilize them in a scientific manner in the treatment of disease. The laws governing mental suggestion are at present as well defined as the laws governing the action of a dose of salts or calomel, and the practical application of one is as easy as the other.

We have found that all functional activity is normally under the control of the subjective mind. That the subjective mind is controlled by suggestion, not only auto, but hetero-suggestion. Now let us examine this force and see what it is capable of, and we can learn more about it by studying its effects under the most favorable conditions. These conditions are found in the hypnotic somnambule; we find in him all the degrees of mental activity from exalted intuition to extreme lethargy and all these conditions are produced by suggestion. Though oral suggestion or commands are largely used by public operators, it is mental and not oral suggestion that operates on the subjective mind; words are but artificial symbols to express ideas to the objective consciousness through the sense of hearing, the subjective mind deals with ideas without the intervention of the senses. This is proven by the following facts: (1) You may command a somnambule who only understands English to perform an act, in any other language he will obey as readily as if the suggestion was given in his mother tongue. (2) You may strongly desire or will certain actions without speaking, sign or motion and he will comprehend and obey. (3) You may tell him to do a thing and will him to do the opposite and he will unfailingly obey the will and pay no attention to the words. So it has been generally accepted that the will of the operator controls the subjective mind of the somnambule, but this control has certain well defined limitations. In things indifferent to the welfare of the organism or beneficial to it, it is all powerful; but where it conflicts with an organic instinct or deep seated convictions it is impotent. To be effective there must be something more than the objective will of the operator, if he has the least doubt of the result of his suggestion the experiment will be a failure, for this doubt seems to operate as strongly on the subjective mind of the somnambu-

[illegible] as in his own and [illegible] the force of the suggestion. This is why the more one practices hypnotism the more successful he is, for he [illegible] confidence in his powers and is able to concentrate more readily both departments of his own brain, objective will and subjective faith.

To induce somnambulism two things are necessary. The power to concentrate all the faculties on one thing, in the operator, and the exact reverse condition in the subject. If the subject has a fixed aversion to being hypnotized you cannot succeed with him until you overcome it: if he is over anxious to be hypnotized you will also fail, for this anxiety will keep awake the objective faculties just the same as the other condition. After a person has once been hypnotized he learns how to adjust his mind for it and afterwards is an easy subject, not because he is incapable of resisting, but because he does not desire to resist, having no more objective dread of it than he has of natural sleep. Suggestion may be indirect and act with equal potency of a direct suggestion; a movement a noise or an odor may operate as effectually as an oral or mental suggestion. The general law seems to be that the most forcible suggestion will be the one acted upon, and the most forcible is the one that conflicts least with the organic instincts or finally settled convictions of the subject.

Suggestion while it acts most powerfully when the objective faculties are in abeyance, can be successfully used during their activity; in fact, you can place a suggestion of your own before the subjective consciousness as an auto-suggestion of the subject. Those of you who have used bread pills practiced this kind of suggestion, and hundreds of times when we think we secure results from the physical action of other remedies we get them in precisely the same way.

To illustrate this kind of suggestion the following case which occurred in my practice a few weeks ago is interesting:

B. F., a young man of 22, stout, healthy and of over the average intelligence of country boys, called on me to extract a tooth for him, which he said had kept him up all the night before and had given him no peace during the day. I did not have any instruments with me and as he seemed to be suffering severely, I told him I could cure the pain with electricity by using a little pocket battery. This at once struck him as a favorable plan to

escape the dreaded forceps and he asked me to proceed. I positively assured him that it never failed to give relief. The tooth was a bicuspid, badly necrosed, and the gums around it swollen and inflamed. I took my clinical thermometer from my pocket, screwed the top off the case, raised it up as if setting it by the scale, at the same time explaining to him that all the pain was caused by congestion of the vessels around the nerve and that a mild electric current removed this congestion by causing the blood vessels to contract. I then passed the end of the thermometer slowly and methodically around the base of the tooth, pressing the edge of the gums sufficient to produce a sensation. In a few minutes the red gums began to blanch, and I called the attention of a by-stander to this effect of the treatment, for the purpose of strengthening my suggestion in the mind of the patient. After five minutes' manipulation I told him his toothache was cured, to which he readily assented. Several days afterwards he told me that "he believed that electricity had permanently cured his tooth," as it "had not ached the least bit or even felt sore since?" "Well," says the materialist, "this was only a coincidence, the tooth was going to stop aching anyway!" Can't we say the same thing of any case of sickness, under any treatment whatever? For we have ever in operation the "*vis medicatrix naturæ.*" But in this case it is conceded that the patient cured himself. There is no electricity in a piece of glass, no healing virtue in the end of a clinical thermometer, and I claim no power as a thaumaturgist. The rationale of this cure is this: The electricity deception lulled the objective mind, or rather threw it off its guard by amusing it with a plausible hypothesis, while the subjective mind seized the suggestion that modifying the circulation was the proper way to quiet a hyperesthetic nerve and acted upon it. The irritation which had first been from some external impact was kept up by congestion superinduced by concentration of the objective mind on the part. This is not with me an isolated case of severe pain being controlled by indirect suggestion, if time permitted I could relate half a hundred cases. I constantly procure free purgation from 1-40 of a grain of elaterin, not with hysteric women, but plain, unimaginative, matter of fact people. I know, and you all know, that if this quantity was ingested in

their food unknown to them it would have no effect whatever, but when I tell them I am giving a very powerful cathartic which will thoroughly clean out the bowels, I rarely fail to get this effect. One might say I was practicing a fraud on my patients, but I administer drugs for results and the smallest amount which will procure the desired result is the best for my patient's constitution as well as for my own pocket. Is it not more safe to the patient to get the full analgesic effect of acetanilid from the sixth of a grain than from three to five grains? I never give over one-sixth of a grain of this drug, and coupled with suggestion I get all the effect I desire.

If a sanitarian should visit one of our cities and discover garbage heaps putrifying in the sun, or obstructed sewers giving out foul odors, he could either call the attention of the sanitary police to these conditions, or advise the mayor, or if he preferred agitate the question in the newspapers and through public sentiment cause the needed sanitation. These methods are direct and indirect suggestion applied to a municipality, just as the suggestive therapeutist applies them to the human organism. The action of medicine on the general system is equivalent to newspaper agitation, the action of specific medicines addressed to certain organs to excite their function is equivalent to advising the sanitary police, and direct hypnotic suggestion to procuring action by consulting the mayor. In both these cases it is not the best policy to attempt to force action, but to induce it, and this is why the small dose often repeated is more successful in a general way than the single large dose. It is a repeated suggestion to a part to act, just as the hypnotist repeats constantly the suggestion—"you are sleepy," "your eyelids are heavy," "you are going to sleep," "you are asleep," "you can't open your eyes," etc. Such rarely fails when persisted in to overcome the most refractory subject when a harsh command, a threat or a shake up would have the opposite effect.

To get the benefit of indirect suggestion through medicines you must not only impress your patient by a careful examination that you understand his case, but you must really have a well defined concept in your mind of his condition; then tell him just what is wrong, how you are going to relieve him, explain how you are going to relieve him, and explain how your

medicine will act—then administer the smallest dose which will produce any effect, and he will carry out your program with unerring fidelity. It is always best to use the isolated active principles of drugs for this reason, most crude drugs contain more than one principle, sometimes one in excess and sometimes another, sometimes your patient is more sensitive to one than the other, and in such cases you are likely to get your suggestion neutralized by arousing a sensation your patient was not prepared for. And right here I wish to call your attention to the fact that physicians very often give suggestions to their patients which are highly detrimental without being aware of it. When the body is weakened by disease, and also in toxæmic conditions, as the objective faculties become more paretic the subjective becomes more acute, and then an inconsiderate remark may become a fatal suggestion; even much anxiety on the part of the medical attendant will have a depressing influence, for many of these patients will read his mind like an open book.

As we do not resort to the anesthetic effects of ether or chloroform for every pain, so it is unnecessary to resort to direct hypnotic suggestion to relieve every ailment, but even the deepest form of hypnosis has its uses. Direct hypnotic suggestion finds its most useful application in functional and nervous diseases of a chronic and obscure nature, and especially that class of neuroses where physiologic rest is absolutely essential. We have in this the power to induce a dreamless sleep of almost indefinite duration and suspend functional activity to any desired degree and for any required period. There are cases where even extreme catalepsy might be useful, for there are not a few instances on record where a spontaneous cataleptic seizure has resulted in restoration to health where all treatment had proved unavailing. To produce anesthesia for both minor and major surgical operations there is not the risk which attaches to chloroform and ether, while it possesses the additional merit of obviating shock and preventing capillary hemorrhage. It may be utilized also in midwifery, giving painless labor and better relaxation, reducing perineal and uterine lacerations to the minimum.

As a means of diagnosis in obscure cases the wonderful intuitive powers of the subjective mind have been used with excellent results. As a means of correcting bad habits there is nothing

which approaches it in efficacy: the liquor habit, morphine, cocaine and tobacco habits have all been successfully treated by suggestion. Of course, as I have already remarked, it has been used mostly empirically and in a haphazard way, but the clinics of Liebault, Bernheim, Delboef, Forel, Benaris, Wetterstrand, Kraft-Ebbing, Moll, Max Dessoir, Van Eeden, and a host of other scientific and careful clinicians, show a larger percentage of cases than any hospital where material remedies alone are used, and they have success in a number of cases where medicine is a notorious failure.

As to the manner in which suggestion works, I will now offer a few remarks with the explanation that I am not speaking *ex cathedra*, but give them simply for what they are worth, with the understanding that future experience may modify or entirely negate them. In the nervous apparatus of all higher organisms we find two agencies constantly in operation, one exerting an exciting and the other a restraining influence. In health there is a proper balance of relation maintained between the two; no function or organ in normal life has full and unrestrained play, for its activity is modified by impulses from all the other parts. From the experiments of Brown-Sequard, Heidenhain, Lauder Brunton, and others, the conclusion is irresistible that this restraining influence is located in certain groups of cells which they call inhibitory centers, and these centers are under the control of the subjective mind, but may be influenced by the objective mind through auto-suggestion. In their normal condition under pure subjective influence they exert that time-honored force we call the *vis medicatrix naturæ* and auto-suggestion often through them causes perversion of function. What we denominate suggestive therapeutics is simply the harnessing of the *vis medicatrix naturæ*, and putting it to work in spite of auto-suggestion; is in fact a physiologic method of handling abnormal conditions. In the use of drugs we secure results by inhibiting functions, but the drug also acts on other functions that we do not wish to inhibit, and often defeats us from this very cause. When we stimulate the vagus to inhibit the heart's action with digitaline and strophanthine, we at the same time inhibit the trophic nerves and interfere with nutrition. When we inhibit the action of the sense centers to stop pain with mor-

phine, we also inhibit the eliminants, and so on through the whole materia medica. Then, if, as seems demonstrated in the somnambule, we can inhibit any one function by suggestion, physiologically, without interfering with others, we have in our hands a remedy at once powerful and harmless and of more benefit than any drug we possess. But this force, to achieve uniformly practical results, must necessarily be exercised in a physiological manner. To suggest to a patient with any disease "to get well" or "cease to be sick," would be like telling a man how to get rich by saying "accumulate property"—either would be of no practical benefit. You must be able to suggest the means, increase nutrition to a part as it is required, or inhibit sensation when too acute, or increase elimination if desirable. To merely relieve the sensations arising from an abnormal condition by suggestion is not a cure any more than by obtunding them with an opiate; when the influence of both ceases, the sensation will return. There is no miracle to be hoped for from suggestion, it is simply a means to an end, and when so used intelligently will give uniformly good results.

It has been offered as an objection to suggestive therapeutics that it would, if what is claimed for it be true, soon make healers out of every one who had a mind to practice it, and the doctor's occupation would soon be gone. People who thus object know very little about suggestion or they would see the absurdity of this objection. The somnambule accepts and acts upon any suggestion, no matter how ridiculous or how foolish, so it does not conflict too much with organic instincts or settled convictions; so in order to cure disease by suggestion, it is as important to know what suggestion to give as it is to know what medicine to give, and the one who has the best knowledge of physiology and pathology will be the most successful. Of course the empiric may hit it sometimes, as he does with medicine, but his success will be infinitesimal compared to that of the educated pathologist.

Another objection offered is, "that it puts the profession in the attitude of Faith doctors and quacks!" I believe that statistics will show that we have at present one hundred medical quacks, not counting patent medicine men, to one faith doctor; so you see we are in pretty bad society already, and our super-

sensitive dignity couldn't suffer twenty minutes. But there is a vast difference between suggestive therapeutics and faith cures. The first is the scientific application of natural psychic processes in the cure of disease. The other a superstition pay on the emotional. The first is applicable to all minds, and the better developed the mind the greater the success of the treatment, the latter only acts with the credulous, superstitious and ignorant.

When we come to understand the part which mental suggestion plays in the functional operations of the human organism, it becomes plain why all sects and all methods often work cures, and it throws a flood of light on what we term the selective affinity of the system in appropriating certain substances and rejecting others. It explains why one uniformly succeeds with a preparation and another uniformly fails with it in precisely similar conditions, why the infinitesimals of the homeopathist produce like results to the maximum dosage of the regular, why the well advertised nostrum composed for the most part of inert substances can show such a large array of cures. We have no right or reason to affirm that other sects are indebted to suggestion and the *vis medicatrix naturæ* for their successes while we cure with our medicines, because these same forces are operating in our cases as well as theirs, and being natural laws they are no respecter of persons, they are not likely to help out the quack and leave the regular to fight out his battles alone. Then we are so diverse in the means we employ, so opposite in our methods of treatment, that our very successes bear testimony against us when we make such a claim.

Of course it is not contended that all diseases are a figment of the brain and equally amenable to mental suggestion, there are many pathologic conditions due to material causes, and these demand material remedies, but it is contended that in these functional disturbances due to psychic inhibition that it is irrational and unscientific to use material poisons in their treatment as to wholly rely on psychic means in the other case. It is our duty as physicians, a duty we owe to our patients as well as to ourselves, to study and explore this field of psycho-physiology. We cannot afford to abandon it to empiricism and stolidly cling to ancient dogmas the truths of which are undemonstrable. We should not be routinists but unbiased searchers after truth. It

is not our mission to uphold and defend a system, but to benefit our race. We are scientists, not sectarians. Liberal science is tolling the death-knell of bigotry, burying in the grave from which there will be no resurrection the corpse of medieval superstition and exorcising the ghost of ignorance. The shibboleth of the past has been, "Nothing good can come out of Nazareth." The battle-cry of to-day is:

"Seize upon truth wherever found,
On Christian or on heathen ground,
'Mid Afric's sands or Polar snows,
The plant's divine where'er it grows."

Clinical Reports.

MAMMARY ABSCESS—ANTEPARTUM.

BY J. L. BARTON, M.D., OF MEMPHIS, TENN.

I desire to report a case of an extensive mammary abscess which occurred during the seventh month of the first pregnancy, in a young woman about 20 years of age. This case was of unusual interest to me, for I must confess it was the first case of an abscess of the breast which I ever saw occur before birth of the child.

Dr. Alexander Erskine, Professor of Obstetrics in the Memphis Hospital Medical College, saw this case with me.

The abscess formed in the posterior part of the left breast, or perhaps in the sub-glandular areola tissue. I opened the abscess, which, on account of the intense pain that my patient suffered, I had to do before I could find any evidences of pus by fluctuation.

My patient was opposed to taking a general anesthetic, so I froze the part with a spray of ethyl chloride for fear I might make her miscarry. I had to make my incision below the frozen tissue before I reached the pus, but she stood the operation very well. I made a deep, free incision external to and radiating from the nipple. While I never measured the pus, I think

there must have been at least a teacupful. I placed a piece of bichloride gauze in the incision for a few days to keep it open, so the pus would all drain out. I then let it heal.

In about a week a residual abscess formed. In this abscess I could easily detect the pus by fluctuation. The operation was done similar to the other, only I opened internal to and radiating from the nipple. I got about a half a teacupful of pus from this abscess. The gland is now as soft as its neighbor, or as soft as you could expect in this stage of pregnancy, but it remains to be seen whether another will form or not.

This abscess may have been due to malaria. I neglected to make a microscopical examination of her blood for the plasmodium malariæ, as I should have done.

My reason for thinking this possibly a malarial abscess was that the young woman was reared in the swamps of the Mississippi river, in Madison parish, La., her father, being a cotton planter though she has spent much of her life in Vicksburg, and Port Gibson, Miss. She has been a resident of this city about four months, coming here from Madison parish, La.

Selections.

CARBUNCLE AND ITS RELATION TO FURUNCLE.—This is an infectious disease of the skin, marked by inflammation of the follicles and excretory glands, with the formation of neurotic cores and a tendency to peripheral extension in the subcutaneous tissues.

It is preceded by constitutional disturbances of more or less grave import, and is ushered in with rigors and high fever. It develops into a dense, flat, reddened tumor of an exceedingly painful character, and of variable dimensions, covered in a few days with yellowish vesicles, situated in relation to the centers of necrotic inflammation. By most authorities carbuncle is considered an aggregation of furuncles, with aggravated accompaniments, due to its location, increased area of involvement, age of the patient and constitutional complications. Against

this theory, on the other hand, are to be noted many clinical features indicating a separate pathology and etiology.

Furuncle is of frequent occurrence in children and young adults. Carbuncle is limited to middle and advanced age. If the pyococcus produced both, carbuncle would hardly be so rare, or limited to middle and late periods of life. Among the thousands of children and young persons afflicted with furuncle, at least an occasional carbuncle should be developed. The neck and back are the preferred sites of the carbuncle. The furuncle has no predilection for locality, but invades with equal impartiality thick or thin portions of the skin.

Furuncles are never attended by serious results to the health, even when successive crops develop the condition known as furunculosis. Carbuncles are always dangerous, and often fatal in their results. Furuncles are often secondary to impetigo or traumatisms, are superficial and circumscribed, become rapidly purulent, and speedily cicatrize after free evacuation of the pus. Pus formation in carbuncles is slow, and relief does not follow its evacuation, but the inflammatory centers multiply and peripheral extension is often hastened by such methods of treatment. After the freest and deepest incisions, with removal of pus and necrotic debris, the reparative process does not always ensue; and when it does it is invariably slow and tedious.

Furuncles are sometimes arrested or abort without treatment, and are called "blind boils;" but has anybody ever heard of a "blind carbuncle?" Carbuncles may be arrested or restricted by judicious treatment, but they never abort. They are almost invariably associated with gout, diabetes, and a gravely disordered nutrition, often coupled with an intemperate life and the degenerative processes of advanced age. The etiology of carbuncle is not yet clearly defined, but there are two facts in connection with carbuncles and furuncles which cannot be overlooked, and which seem to argue against a unity of origin. They are: The rarity of the *former* and the *frequency* of the latter.

There are three imperative indications in the treatment of carbuncles: *eliminate, restore tone* for the promotion of assimilation, and *alleviate* local distress.

When the system is burdened with morbid humors I have often witnessed the benefits of saline purgation. It allays fe-

verishness and mitigates pain in the early stage of carbuncle. It promotes secretion and excretion. It is antiphlogistic in principle and logical in practice. This initiative therapy should be immediately supported by the antipurulent and stimulating effects of Ecthol. The gouty salts, which are almost constant accompaniments of this disease, must be met with bitters and alkalies, such as gentian and bicarbonate of potash or colchicum. The mineral acids should also form a part of our armamentarium. But Ecthol is the main reliance, and should be given in teaspoonful doses four times a day; in extreme cases, every two hours. Diet should be nutritious and judiciously supported with moderate alcoholic stimulation. In the early stage, when inflammation rapidly follows hyperemia, the tumor is hot and throbbing; cold applications are now indicated. By their constant use we will prevent the exudative infiltration which, by the pressure on the blood vessels, arrests circulation, causes thrombosis, infarction, and finally necrosis of tissue. When carbuncle nevertheless advances in spite of our efforts to check it, we must abandon the cold applications and substitute compresses saturated with Ecthol. At this stage it is important to counteract the injurious effect of long-protracted pain. The patient must have rest—the rest of sleep. To insure this it may be necessary to resort to opiates, but they should be discontinued the very moment the patient rests without them. The next question arising is: Shall we resort to incision? If the tension is great and pain intolerable, with rapid extension of area, incision is indicated; but to secure its benefits it must be *deep* and *thorough*. The tumor must be laid open throughout its entire extent. This will not only afford relief to tension and pain, but will prevent the unnecessary destruction of tissue. After the incision is made, it is only necessary to remove the detached debris. Extensive scraping or curetting of the incised tvmor is meddlesome surgery. The incised parts should be irrigated with a mild solution of peroxide of hydrogen and dressed with Ecthol.

The rest should be left to the *vis medicatrix naturæ* of an assiduously nourished body.—*O. F. Baerens, M.D., in Am. Jour. of Dermatology and Genito-Urinary Diseases*, May, 1899.

CURATIVE VALUE OF GYNECOLOGIC OPERATIONS IN INSANITY.—The effect of disorders of the reproductive organs in causing or perpetuating mental disorders in women has been for a long time a vexed question among practical alienists. A certain proportion, probably the majority, are dubious as to the importance or this factor; many see objections to any very general extension of gynecologic surgery in asylums except where absolutely necessary. On the other side, we have some ardent enthusiasts who see in gynecologic diseases one of the chief active factors in the mental disorders of women. An article in the July issue of the *Dominion Medical Monthly* is in evidence of this; it is one of several that have recently emanated from Canadian sources maintaining the necessity and importance of gynecologic work in the insane. The author, Dr. Ernest Hall, has no hesitation in stating his convictions. He writes, however, with the heat of the reformer when he speaks of the opposition of "vested prejudices and conventionalities" that must be disturbed, and of dyeing the chariot wheel of progress red with the "political and official life blood of those who affirm that present methods are adequate." His statistics, so far as he gives them, however, are of interest; out of 70 female insane patients, 33 of the most intelligent and favorable cases were selected for examination; 30 of these cases were found fit cases for operation and 7 were operated on with the result of three cures, mental and physical, 2 improved, 1 death, and 1 with the result still in suspense. He tabulates 12 cases, the above being included, from which a better estimate of the strength of his position can be made. One of the twelve is noteworthy, a cure of melancholia of ten years' standing by double castration. One of the other two cases cured was insanity of only three weeks' standing, and the other of only a little over a year. It seems quite within the range of possibility that the production of an artificial menopause might have sufficient effect to materially modify the patient's mental condition, but as none of his cases have yet been over seventeen months under treatment, there still remains some rational basis for reservation of opinion as to the permanent cure, and the results are possibly less startling than he claims. The personal equation of the physician needs to be taken into account in the case of the estimate of the cure or improvement of the insane,

as has long since been pointed out by Pliny Earle and others. This element has to be considered to some extent in any case, and all the more if the physician has enthusiastic views on any special theory or mode of treatment. On the other hand, we have the varying opinions among gynecologists and our knowledge of the variations of practice among them.

Insane women are not capable of deciding for themselves, and the physician's responsibility is increased in their case. It is not remarkable, therefore, that asylum physicians should be cautious in advocating any general gynecologic crusade among their patients. It is, moreover, unjustifiable to assume, as does Dr. Hall, that they are guilty of what is practically criminal neglect in not so doing. The opinions of experienced alienist physicians and neurologists not in accord with those of Drs. Hall, Bucke, Rohe and others on this subject also do not go for nothing in this matter; they are certainly numerous enough and sufficiently eminent in the profession to carry weight. The introduction of women physicians into hospitals for the insane, for the special duty of gynecologic work, has met some of the demands of the reformers, but these are by no means unanimously enthusiastic over the value of operative gynecology in the treatment of insanity in females. It is easy to suppose that any considerable operation may affect the mental condition temporarily for the better, as it does the attacks in epilepsy, but that enough permanent improvement can be brought about in this way may possibly be as dubious in the one case as in the other. It can hardly be said to have been proved as yet.

Considering all these facts, it seems safest to say that while an insane woman has as good a right to be relieved of needless suffering as any other, yet there are obvious reasons why judicious conservatism is advisable in the practice of gynecology in the insane.—*Journal of American Medical Association.*

A Tale of a Wicked Druggist who Substituted.—Once upon a time there was a man of parts, who was also a physician.

And the skill of this man was so great that the people of the land were wont to flock unto his office for advice, and incidentally medicine. As the years passed by he grew in wisdom, and

the sick and suffering who sought relief from him invariably found it, for his consultation price was five. And to those whose red blood corpuscles were few and far between he always prescribed a favorite medicine, the like unto which there was, nor is no equal, no not one. And the name thereof was Pepto-mangan.

And the pale people who took this medicine grew well and strong, for their blood became good. Then their souls would be full of gladness and they would return unto the Doctor laden with milk and honey, for by his advice had they not found health and happiness? And the Doctor was glorified in the eyes of his patients, and many shekels were his.

Now there was a certain Druggist to whom the people were wont to take the Doctor's prescriptions to be filled. His face was that of an Angel and a small halo of his own manufacture encircled his fair forehead. But his heart was black within, and verily he was possessed of a devil. And when he saw the great sale of Pepto-mangan, and the countless prescriptions which the Great Doctor was writing for this marvelous remedy, his heart was full of envy and greed.

"Why," cried he, "should not I with all my knowledge of mixing drinks and medicines prepare a remedy like unto his Pepto-mangan?"

So out of the iniquity of his heart he prepared him a substitute.

And to the many who came to his store clamoring for Pepto-mangan he would say that he was just out of that particular preparation but that he had another "quite as good, if not a little better." And the good people looking up at his halo believed him for an honest man and went forth from his store well pleased at his kindness in giving them something even better than what the Doctor ordered. To others he would say nothing, but would fill their prescriptions with his own concoction and send them away in ignorance of what had been done.

And as the shekels poured in on his counter like golden rain, his soul laughed with glee, for in his mind he saw himself rich beyond compare.

Bot the people grew well no longer.

No more did they repair unto the Doctor with thankful hearts.

Instead of returning unto him with praise and thanksgiving as before, they approached his sanctum with lamentation and wailing. And curses were his, instead of shekels.

"What ho," quoth he. "Wherefore am I getting it in my cervical region? Can it be possible that I, even I, have become a 'has been?' Or has my favorite tonic failed me in my old age?" And he made talk with his patients, seeking knowledge whereof they were no better. And after many questionings he learned of the iniquity of the man of Drugs. Then he was wroth, and with voice like the raging wind he poured forth unto the Heavens the crime of the Druggist.

And all the people heard.

Therefore did they meet together and with one accord hastened unto the store of him who had defrauded and cheated them.

And their anger knew no bounds, for they took him out into a lone place and with no unnecessary ceremony *hanged him to a tree.*

Then on his breast was pinned a card on which were written the fateful words—"*Not what he wanted—but something just as good.*"

No more thereafter was substitution known in the land, and the people thereof became well and lived happy ever afterwards.

Moral to Doctors.—Beware of substituting Druggists if you expect to cure your patients.

Moral to Druggists.—Beware of the wrath of the Doctor and patient on whom you practice substitution.—*Vermont Medical Monthly.*

THE COLD PLUNGE.—Dr. Hobart Emory Hare, Professor of Therapeutics, Jefferson Medical College, Philedelphia (*American Medical Quarterly* for June) says:

"During the past three months I have had 64 cases of typhoid fever under my care. Every one of these has required hydrotherapy; in only two has the persistency of the fever necessitated the use of the cold plunge.

"In the opinion of those who have the largest experience, hydrotherapy is needed in every case of typhoid, and with this view I most heartily concur.

"When it comes to the question of dosage (in hydrotherapy) my point of view differs from that of some others.

"As firmly as I believe that the cold plunge is not for every one, so do I believe that in some cases it is the best and only thing which can be employed with advantage.

"I believed that the mode of applying cold should be varied to the needs of the individual patient, and I have yet to see the case in which I have regretted the employment of the modified plunge bath.

"What, then, are the modifications that I would suggest? First, the use of cold applied to the body of the patient who is stripped and who lies upon his bed, while the nurse gives him the necessary friction and massage.

"It is of vital importance that the nurse who employs this modified bath treatment should be trained to his duties.

"I am firmly of the belief that the active rubbing which accompanies the use of cold in the way that I have described, is of great advantage to the patient, because I believe that a gentle massage given to patients suffering from typhoid fever and who are practically taking the rest cure, is an exceedingly useful thing for the maintenance of health. Second, because by these frictions we increase reaction; and third, as has been proved by Popischil, friction increases the loss of heat 80 per cent., and, according to Weisroch, the loss of moisture through the skin 50 per cent.

"Whenever a physician tells me that he is unable to lower the temperature by friction and cold without the plunge, I am confident that it is because the method has not been properly employed, for only rarely is the fever so persistent as to fail to drop.

"Of course in the early stages of typhoid it is a well known fact that the fever is peculiarly resistant, not only to cold friction but also to the plunge itself."—*Medical Dial.*

"DOCTOR," said he, "I'm a victim of insomnia. I can't sleep if there's the least noise—such as a cat on the back fence, for instance."

"This powder will be effective," replied the physician, after compounding a prescription.

"When do I take it, doctor?"

"You don't take it. 'Give it to the cat in a little milk."—*Bits.*

Editorial.

WAR DECLARED!—ON THE MOSQUITO.

The Espano-American war having terminated, and the rainy season in the Phillipines now rapidly drawing to a close, with an active Root-*er* at the head of our War Department, who is acting rationally indeed in rapidly marshaling such a force as will soon "settle the hash" of Aguinaldo and his deluded followers, two of our ablest weekly contemporaries, the *Journal of the American Medical Association* of August 12, ult., and the *New York Medical Record* of August 19, ult., with a singular unanimity of thought, have the leading editorial articles of these particular issues devoted to declaring a war of extermination on our would-be relatives of the genus *Culex*, who, although most beautifully and delicately winged, and with mellifluous voice, are by no means angelic in their visits, and are quite capable and competent to provoke thoughts and expressions not by any means allied to the Beatitudes on the part of those visited.

We are quite willing to join our able and gifted friends in this war of extermination,but feel somewhat disposed to question the *casus belli* as advocated. Yes, either as high private in the rear rank, if no shoulder-straps are left, or a soft, easy berth in the commissary, quartermaster or pay departments is vacant, or even as a camp-follower—but let us be just in our declaration. The mosquito, whether he be of the species *Anopheles* or any other, just so he is not of the *anopla* tribe, is well deserving extermination or extirpation—"vich hever you likes, my little dears. You pays your money and you takes your choice." Ah! but did not some one say "first catch your hare"? Unquestionably he—or she—is vicious, venomous and vindictive, a veritable vampire, only you are not fanned to sleep by the gentle zephyrs wafted from his wings. A blood-sucker, cruel and blood-thirsty—aye, and ruthlessly so. He does not need the blood of a mammalian for nutriment; nay, on the other hand, born of water and on the water, he will exist for days, weeks and months on moisture, or even dampness alone, enjoying a happy and harmless existence; and when he has partaken of a repast on the rich red corpuscles of the *genus homo*, even though he escape the oft-essayed blow and the reiterated damning from one of the lords or ladies of creation, he soon pines away and dies—surviving his sanguiferous feast but a day or two. If he would only come quietly, silently, gently, and easily, not disturbing our hours of well-earned rest, or meditation by his clamorous claims of cousinship, and would only take his fill of the richest and reddest of our blood globules without leaving a receipt behind to show that a bill has been settled—aye, settled deeply and memorably—we might be willing to

preserve yet awhile an armed neutrality. Admitting that he has many high crimes and misdemeanors to answer for, a ghoul indeed, feasting on the bodies of his own dead—aye, even on that of his maternal ancestor—though we can only feel indebted to him for many lost hours of well-earned sleep, together with much wasted profanity and muscular energy in our futile efforts to slay him on the spot, we cannot accept the far-fetched idea that to him we owe the development, spread and progression of malaria. This theory, though it may have been held by "ancient Roman writers" away back beyond the dark ages, or later by "Linne or Holland, the peasants of certain parts of Italy and Tyrol, barbarous tribes in malarial districts of Africa and elsewhere," or by such "scientific medical men" as "King and Nott of America, Laveran in France, Manson in England, Koch in Germany, Bignami, Grassi and others in Italy," or even Nuttall. Oh, no! *not at all*, even though backed by such wielders of the cedar and graphite as the gifted Shrady of New York, or Simmons, the brilliant son of the mighty West.

The *Journal of the American Medical Association* and the *New York Medical Record* reach possibly by far the largest number of the most progressive workers in the field of medicine in America; other journals, monthly or weekly, may have a larger circulation, but we give it as our opinion that in the active field of earnest workers and men of progress, research and earnest investigation, our two highly prized contemporaries are quite in the van; yet we have quite a number of readers, and some who take either one or both of our highly-prized contemporaries; others who do not. For the benefit of the latter, we hope the former will pardon our reproduction in full of the two editorials. The title and editorial of the *Journal of the American Medical Association* of August 12, ult., is as follows:

MOSQUITOES AND MALARIA.

For many years we have known that malarial fever and certain similar animal diseases are caused by minute parasites of the blood. Considering the number of investigations on the etiology of these diseases, it certainly seemed strange to some that no light could be thrown on the form and mode in which the parasites, especially of human malaria, existed outside of the body, and on the way in which they gained entrance into our bodies. A number of theories were advanced; it was assumed that the microphytes existed in the soil, air, or water of humid regions, multiplying freely in these elements; that they were carried by air currents and in mists and vapors, infecting persons through the air breathed or the water which they drank; and in not a few places it was thought that malaria stood in some close relation to the bite of mosquitoes and other insects.

The mosquito theory of malaria is not of recent origin by any means. It was held by ancient Roman writers whose clinical knowledge of malaria was very accurate and minute; Linne, Sir Henry Holland and others regarded the transmission of malaria by mosquitoes as quite probable; such was also and is to-day the popular belief of peasants in certain parts of Italy and Tyrol, and of barbarous tribes in malarial districts of Africa and elsewhere; and we find the same theory advanced in a scientific manner by such medical men as A. F. A. King and Nott of America, Laveran in

France, Manson in England, Koch in Germany, Bignami, Grassi and others in Italy.

In his very complete and interesting review of the whole mosquito theory Nuttall (Cbl. f. Bakt., Abth., 1899, xxv, 161 et seq.) carefully considers the various general facts and arguments which King, Laveran and others have brought forward in its favor. King looked on such arguments as he could present, not so much as proof of the correctness of the theory, but rather as incentives to experiments and observations which might lead to convincing discoveries. From the voluminous observations tending in a general way to support the mosquito theory the following features may be selected for mention: The seasonal and soil relations of malaria which prevail especially in moist and warm seasons and in marshy regions—such as the deltas and courses of great rivers and also certain littorals—conditions which certainly greatly favor the development of mosquitoes and other insects; in malarial regions protection against the bite of mosquitoes also protects from malaria, as shown by the results of diverse measures employed by the inhabitants and of travelers through such regions; the decidedly favorable or anti-malarial influence of certain occupations, of cultivation of the soil and also of altitude, presumably the result of the prevention of the sting or of the total absence of the insects. Indeed, it is generally accepted by those who have especially studied the question that mosquitoes always occur where malaria prevails. Grassi, Ross and Koch expressly state that they have not seen malaria in regions free from mosquitoes. It goes without saying that mosquitoes often occur where there is no malaria—not all mosquitoes are necessarily carriers of infection.

The mosquito theory of malaria received powerful support by the demonstration, by Theobald Smith, that the hematozoon of Texas cattle fever is transmitted by the bite of the cattle tick (*Boophilus bovis*); Laveran, Koch and others emphasize that the mosquito probably plays an exactly analogous part in malaria. Based on his demonstration that the *filaria Bancrofti* passes part of its existence in the body of the mosquito, Patrick Manson in 1894 expounded the theory that the organisms of malaria also divide their existence between man and mosquito; arguing from the remarkable fact that the flagellate bodies in certain forms of malaria are not developed until the blood containing them has been outside of the body for some time. Manson drew the further conclusion in favor of his theory that the purpose of the flagellate bodies is the continuation of the life of the malarial parasite outside of the human body. Now the hematozoa cannot leave the blood-vessels spontaneously, hence the necessity for the presence and the operations of a suctorial insect. Manson, and also Laveran, believed that the human infection took place by way of drinking water infected by mosquitoes which had sucked up malarial blood and died after laying their eggs in the water, or by the inhalation of dust produced by the drying up of small pools and puddles which once contained infected water; furthermore, that human patients may introduce malaria by infecting the mosquitoes.

Manson's deductions were destined to exercise a decisive influence on this investigation because they pointed out the exact way in which some of the problems should be attacked in the actual and crucial experiments which were undertaken with signal success by Donald Ross, an English army surgeon in India. Shorn of all details the results of Ross' great work during the past three and a half years—1895–1899—may be summarized in the following statement: The "cultivation" of the parasites of human malaria in the bodies of two species of mosquitoes inoculated by being allowed to suck the blood of malarial patients; in the infected mosquito the parasites occurred as peculiar, pigmented cells in the walls of the stomach. Feeding mosquitoes on the blood of birds containing

hematozoa (*Halteridium* and especially *Proteosoma*), he traced the formation in the walls of the stomach of large cells which fall asunder into spindle-shaped bodies—"germinal rods"—which are carried by the blood to the salivary glands, where they collect in huge numbers and whence they are discharged into the blood of healthy birds bitten by the infected mosquitoes. It requires seven days or so after the infection of a mosquito before the germinal rods or sporozoites reach the salivary glands, and birds bitten by such mosquitoes fall sick five or six days afterward.

The development of the parasites in the body of the mosquito, as described by Ross, has been confirmed by such scientists as Manson, Laveran, Metchnikoff and Nuttall, who have all examined his specimens.

No sooner were Ross' observations made public than they were confirmed by the independent studies of those indefatigable students of malaria, the Italians, especially Grassi, Bastianelli and Bignami, whose researches in this direction have carried our knowledge of human malaria still further than Ross. They have succeeded in not only infecting persons with malaria through the bite of infected mosquitoes, but they have traced the whole development in the body of the insect of the crescent of the estivo-autumnal type and partly that of the tertian parasite. We are also told that they have found young parasites in the eggs of infected mosquitoes. (Nuttall. loc. cit.; see also "Koch and His Methods," correspondence in the Phil. Med. Jour., July 15, 1899, p. 103). Malarial parasites have also been found in a large percentage (75) of mosquitoes captured in rooms and localities inhabited by malarial patients.

It will be recalled that Manson and others thought that the infection of persons with malaria occurred through drinking of water or the inhalation of dust containing parasites derived from dead, infected mosquitoes. King and others believed that the bite of the mosquito gave rise to the infection. Koch doubted the direct transmission of malaria from person to person by way of the mosquito; it did not seem likely to produce such a direct infection: if such should be assumed to be the case the disease would have to spread much more rapidly than it actually does—an argument which could now be met, if that were necessary, in the light of recent demonstrations, by the fact that there are many kinds of mosquitoes and that all do not carry malaria.

During their investigation Ross, and more especially the Italians, have learned that not all kinds or species of mosquitos act as hosts of the parasites. There are many species, and among them the common or domestic mosquito (Ross), which do not seem to bear any relation to any known hematozoon infection. The particular kinds of mosquito which can furnish the suitable conditions for the growth in their bodies of the organisms of human malaria belong largely to the genus *Anopheles*, of which there are many varieties. Whether other kinds of suctorial insects than mosquitoes can act as the carrier of human malaria has not yet been determined:

Different suggestions have also been made with respect to the modes in which mosquitoes might become infected. Bignami thought that possibly the insects picked up the parasites from the ground, but Dionisi, from his investigations, could find no facts in favor of this view. Mosquitoes eat each other's excrements and possibly become infected in this manner. Or the larvæ might become infected through eating the cadavers of the mothers. Evidence is accumulating, however, which tends to show that mosquitoes once infected by drawing blood, may perpetuate their infectiousness through succeeding generations by transmission of the parasites in a sort of sporing form to the eggs of the female. Grassi has observed spores in mosquito eggs (*Anopheles*) and it has been found that in Italy fertilized females may live through the winter, perhaps in this way preventing the dying out of the parasites.

In connection with this phase of the matter it is inter-resume of the role of the ectoparasitic tick in Texas fever. In a recent paper, Theobald Smith (The Etiology of Texas Fever, with Special Reference to Recent Hypotheses Concerning the Transmission of Malaria, N. Y. Med. Jour., July 5, 1899,) gives a clear resume of the role of the ectoparasitic tick in Texas fever, the devastating disease which recent studies have shown occurs in Finland, Roumania, Italy, Austria, South Africa and German East Africa. The permanently infected territory in our own country includes most of the Southern States. That ticks carry this disease was suspected long ago; as early as 1868 it was mentioned only to be condemned by John Gamgee. Smith and Kilbourne have shown conclusively by their experiments that the tick carries the disease. The tick is exclusively parasitic in its habits and does not pass from one host to another. The fertilized female after a certain time drops dead to the ground and deposits one or two thousand eggs. After a varying time the embryos emerge, attach themselves to the host and begin a new life cycle. Now by placing animals in a pasture infected with the embryos of ticks from Texas fever cattle the development of the fever is observed to follow. Artificially-hatched eggs of ticks from sick animals also produce the disease when the embryos are placed on healthy cattle. While the life history of the parasite in the tick has not yet been traced—the Texas parasite has not yet been found in the eggs of the tick—yet it is warranted to assume that the eggs carry the infection and that the young tick discharges the parasites into the host during the process of drawing blood. Smith assumes that partially immune cattle, in the blood of which the hematozoon may exist for years, under suitable states become the source of new centers of infection through the agency of the tick. Reasoning by analogy, Smith suggests that malaria may spread in a similar manner. Brought into a perhaps hitherto non-malarious district in the body of human beings suffering perchance from a chronic or mild infection, mosquitoes transmit the parasites to younger broods which again spread the infection among men. In temperate climates it is not unlikely that the parasite is protected over winter in the bodies of human individuals. Certainly the scattering of an infected brood of mosquitoes explains well what seems to happen in the newly malarious territory. Whether certain animals can harbor the malarial parasites of man is still undecided. Dionisi has found a hematozoon of the bat which resembles human varie ies very much

Reconstructing, in the light of the new fact, the developmental history of the malarial parasites, we find, as pointed out by the Italians, that human as well as animal parasites, or hematozoa, possess intermediate hosts and alternating sexual and non-sexual generations. The intermediate host is a warm-blooded animal, including man. The definitive host is an acarus (mite) or a diptera (mosquito, etc.). In the warm-blooded animals the parasites multiply rapidly by segmentation; temporarily unreproductive, sexual forms (crescents, flagellate bodies) are also formed, which copulate—probably as described in the case of certain hematozoa of birds, by MacCallum—(Jour. of Exp. Med., 1899.) when they reach the stomach of the definite host; a sporoblastic form results, from which sporozoites arise, accumulate in the salivary glands of the host, when they are deposited in warm-blooded animals during the bite of the insects—a complicated yet simple cycle analogous to that of many other organisms requiring two hosts for their development: Tenia solium, Trichina spiralis, Filaria Bancrofti, Filiari recondita, the organisms of Texas fever and Tsetse fly disease. In the case of malarial organisms the insects are spoken of as definitive hosts because they harbor the higher stages of the development of the parasites.

The old mosquito theories of malaria are therefore to be considered

[illegible] [illegible] [illegible] malaria [illegible] by preventing the development [illegible] [illegible] [illegible] [illegible] distinguishing [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] experiments. [illegible] [illegible] [illegible] [illegible] malaria [illegible] [illegible] [illegible] be fortified against the dangerous conditions.

[illegible] editorial of the *New York Medical Record* of August [illegible] [illegible] [illegible] in full.

MALARIA AND THE POSSIBILITY OF ITS EXTERMINATION.

Malaria is admitted on all hands to be the most widespread disease that attacks mankind; it is also probably the most fatal to life. In tropical and subtropical countries there is scarcely any malady that claims so large a number of victims. For example, in Italy the statement was recently made upon trustworthy authority that "malaria" keeps nearly five-sixths of ground from cultivation; it affects sixty-three provinces and every year causes about two million illnesses, causing the death of fifteen thousand human beings. In Africa, in Asia, in South America, indeed, in every part of the globe situated in the tropics, the effect of its ravages is almost beyond computation. However, these facts are too well known to need further discussion, and the thought that naturally arises in the mind of every intelligent person is, How is it, then, that science has not succeeded in devising means to check or stamp out a disease so inimical to the human race? The answer, which covers nearly the whole ground, is the simple one that until recently the cause of malaria has been obscure. Many theories have been set forth in explanation, the majority of which were more or less visionary and rested on no firm foundation, while the one that appears now to be most worthy of belief required further proof before being generally accepted.

Of course it has long been a matter of common knowledge—at least in the greater number of cases—that in those swampy districts in which malaria had formerly prevailed, and where an efficient system of dranage had been undertaken, malaria was quickly and effectually banished; but why this should be was only surmised. The fact, too, that malaria is produced by certain minute parasites in the blood has been for some considerable time well known to scientific men; whence they came, however, and their mode of entrance, remained a mystery. To the Frenchman, Laveran, the credit is usually given of first publishing the theory that the mosquito is responsible for the introduction of this parasite into the human system. Dr. Patrick Manson followed this line of research, and made public his opinions on the subject, which Major Donald Ross has so far confirmed by experiments in India extending over a lengthy period. Such eminent authorities as Bignami, Grassi and Bastianelli have declared themselves convinced that these views are in the main correct, and that in the bite of some species of the mosquito the solution of

the malaria problem must be looked for. So much has already been written in regard to Manson's theory, and concerning the painstaking and acute investigations of Ross, tending to prove the same, that it would be superfluous to touch further on that part of the question. Suffice it, then, to say that most distinguished scientific men are of one mind as to the mosquito being at any rate an important if not the chief factor in the dissemmination of malaria. Major Ross, regarding this point as practically proven, suggests, in a lecture delivered by him to the students of the Liverpool School of Tropical Medicine, a method of extirpating malaria. He is of the opinion that this object will be attained if the mosquitoes which produce the disease can be exterminated.

The fact must ever be borne in mind that no claim is made that every mosquito is capable of conveying the malarial infection. This would preclude all possibility of extirpating them. According to Grassi there are three species, all belonging to the genus *Anopheles*, which are in this way a menace to the health of man, while in India Ross demonstrated that one species of the same genus was able to convey the malarial germs. This species makes its home in and around isolated natural pools and puddles, which are used by them as breeding-places. Again, it is not proposed to attempt to obliterate the adult parasite-bearing mosquito, another impossible task. The end in view would probably be gained by finding out where they breed and by destroying the larvæ. The larvæ of the dangerous mosquito can be distinguished by the fact that they float flat on the surface of the water, and the adults themselves are remarkable in that, unlike the members of the commoner species, their wings are spotted. An infallible sign in the detection of their breeding-place is, says Ross, their invariable habit of congregating in large number in its near locality. When the breeding-place is discovered, the plan of campaign suggested by Ross is a wholesale "slaughter of the innocents" before they have reached the winged stage in their development, and the method proposed is to empty or drain the pieces of water which serve as their nurseries. Provided that the breeding pool is located correctly, this proceeding, although at first sight appearing to present almost insurmountable difficulties, will when regarded more closely be seen to be eminently feasible. The pieces of water selected by the dangerous mosquito as a breeding-place are always so circumscribed in area that they can be emptied or drained easily. Small collections of water are chosen for the reason that they contain no minnows (which look upon the embryo mosquito as a dainty tid-bit and devour it with gusto).

With the view of substantiating the efficacy of this mode of checking malaria, arrangements have been made for an expedition to start from Liverpool to Sierra Leone in August. The expedition will consist of Major Ross, Dr. Annett, and an experienced dipterologist, and will spend five weeks in Africa, and will return next year and on future occasions. The extermination of malaria is a matter of almost as great import to Americans as to the British, for the fact should not be forgotten that not only is it prevalent in various sections of this country, but that both Cuba and the Philippine Islands are hotbeds of the disease. Therefore, there can be no doubt that the experiments of Ross and his *confreres* will be followed with intense interest here, and the United States will join with the European nations in wishing them every success in their efforts for the common good.

There they are! Now you have them—the views of leaders in and makers of medical opinion in America. Damon and Pythias; Pylades and Orestes, hitched to the car of progress of American medical opinion, set in motion on the *via tuta, trita*, and hewn out by the ancient Roman writers and their successors down to Laveran, Manson, Ross, Bignami, or

subdivide, sporulate, or even possibly copulate—and the sudden development of a malarial attack, quotidian, tertian, quartan, or even remittent, is the result, is asking just a little too much. Capt. Marryatt, in one of his sea tales, relates the incident of a sailor boy's return, and among the tales that he told was that on taking up anchor while in the Red Sea a golden chariot wheel was hanging to one of the flukes. This the goodly old dame, his aunt, could believe, for she was a Scripture reader and "did not Pharaoh and all his hosts (and they were not skeeters) get drowned there?" But when the lad said he had seen flying fish—"Ah, no, Jack!" she said, "don't ask me to believe that. I always thought you were truthful."

Having been in pretty good health for several years past, possibly the bite of an infected *Anopheles* some time last summer was the cause of a distinct malarial attack that came on last May, not very long in succeeding an April week's relaxation with the black bass of a distant county. It was malarial, and an oil immersion, one-quarter or one-sixth objective, was not needed for its diagnosis. *Anophiles*, he was lying low at that time, for sharp frosts had not all gone; possibly he may have been the cause, but to our mind, if we had staid at home in the spring he would not have bitten us last summer. But that *C. Anopheles* did us that dirt—oh, no! We are not so cruel. We can't lay that charge at his door—he has sins, high crimes and misdemeanors enough to answer for.

Well, but now that we have caught our hare, who will we call *C. Anopheles* for short, how are we going to kill him? Why, easy enough. If you can't get minnows to live in the water—"*C. A.*" is a tid-bit for the minnows—that must be why the minnows are so cold-blooded, always have chills; yes, if you can't populate your surface water with minnows, you must get rid of it by *drainage*. First, permit us to suggest if you want all the pools, plashes, etc., in which you can detect the larvæ of the correct variety of "*C. A.*" thoroughly drained, just get a few bags of diamonds, rubies, sapphires, etc, and carefully sow them into the pools and plashes—they will then be drained, and thoroughly. Drainage, my good friends, not only gets rid of the plasmodia, but many other germs, disease breeding in character; yet you can never drain Porto Rico, Cuba, the Phillipines, or even "God's country," as Middle Tennessee has oft been called, so thoroughly as to get rid of the mosquito.

But you want to kill the mosquito. Let us turn again to Capt. Marryatt, who occupied much of our boyhood days in the early '50s, before we had been entranced with the melody of Watson's Practice, tormented by the intricacies of Wilson's Anatomy, delighted with the wonders of Dunglison's Physiology or the symbols of Silliman's Chemistry. In "Japhet in Search of a Father," the quack fakir sold quite a number of packages of a certain powder that was infallible as a death-producer to the genus *Pulex*, order *Aphaniptera*, promising to give proper directions how to use it when a certain number were sold. This being accomplished, he said: "You catch your flea just behind the shoulders (that old hare

[illegible]

[illegible]

[illegible] Kansas, Iowa and Texas [illegible] will only from the Dark Continent. It will not only be much more numerous, but will produce more cinchona or anti-fever in its vegetation will still thrive. Planted just [illegible] of orange and [illegible] tracy improves the healthfulness as well as productiveness of the same, and it will be a mighty dry time—for longer heaven drinks for gin and cocktails in the Sunny South, or in the pro-American Mississippi Valley from its head to its mouth—when these sections are drained of dry that mosquitos cease to sing, then it was on that memorable occasion when the Governor of South Carolina met the Governor of North Carolina.

We certainly expect to die some day—perchance the time may not be distant, and possibly a malignant remittent or intermittent may be the cause. *We may die from malaria*—Cromwell so died—but if so, say so, and spell malaria with a great big M, and don't say I died from a mosquito bite.

Fish Henry was one of the best conductors that ever pulled a bell *and or punched a ticket on* the "chemin de fer" that extends from the beautiful city at the falls of the Ohio—how the skeeters do hum there!—and the City of Hacks. John Morgan smashed the engine of his train on one occasion, ten miles above this city, with a mountain howitzer across the Cumberland. He was one of the first conductors the L. & N. ever had, and on reaching Louisville one afternoon at the end of a satisfactory run, he attempted to board a one-mule car to go up town to his hotel. In the midst of apparent safety we are ever in danger. He missed the step, was dragged under the car, crushed, and so mangled that death came to his relief in 48 hours. Scarcely one hour before his death, fully cognizant thereof, he said to the writer: "I have been running on this railroad for over thirty years, have had all kinds of accidents and narrow escapes, and now, after all this time—mind you, I know I have got to die, we have all got to do that—but just to think that I—yes, I, Fish Henry must be killed by a d——d bobtailed, one-mule car, on level Broadway!"

No, don't say that *C. Anopheles* did it. The charge is unjust; he may kill a bird we know that they just worry a canary bird to death, yes—but manslaughter, murder in the first degree, not homicide, not involuntary manslaughter oh, no! do not charge him with so high a crime as wilfully, feloniously, secretly if he could only keep his confounded music box shut, and with intent, to murder a man, woman or child.

Yes, those protected from mosquitoes are not so much troubled with

malaria. The officer in his net-guarded tent differs from the poor private; the one sleeps well; he also eats well, is clothed well, and in every other way has advantages denied his humbler but no less worthy and heroic companion. It is not the mosquito that brings the malaria to the one, but it is the infernal nuisance of his tireless tune, and the painful pricking of his pringling pike that so harasses and worries the unprotected that sleep is denied unless surcharging his nostrils and lungs with carbon dioxide from some villainous fumigation, such as burnt shoe soles *et id omne genus*. Yes, the greater privations, the more exhausting duties, are well calculated to bring one within the reach of the plasmodia, but it is just a little too heavy a load for *C. Anopheles* to carry ; therefore let us be just, if not generous, in our bill of charges.

The mosquitoes are of diverse varieties, and the particular plasmodia-bearing kind must be sought—heh ! Gov. Taylor, "Our Bob," in one of his inimitable lectures, has something to say about "Diver's Diseases," and diverse remedies, but space prevents its recital here. We can only say that the labors of Hercules pale into insignificance with the contract suggested of so draining the land as to extirpate *C. Anopheles*. Just a little too large a trust, even in this day of combines.

The revelations of the microscope have been most wonderful indeed, far exceeding in their reality the conceptions of a De Quincey or the most fertile imagination of an Arabic brain in the days of Haroun Al-raschid—so entrancing that we have at times almost regretted that we were not monoculous; but that "fever and ager," chills and fever, malarial diseases, or the plasmodia, are dependent on the mosquito—even on *C. Anopheles*—for their perpetuation, is a little more than can be crammed down our American throats, even if essayed by an entire host of big-named or little-named foreigners; aye, and even they, too, backed by two Georges. No, we can't even squint at it. Argument might be extended; but one of the first principles of all sciences, even medicine, is "*falsus in uno, falsus in omnibus.*"

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The twenty-fifth annual meeting of this progressive organization will be held in Chicago, Ill., October 3, 4, 5 and 6.

As this is the first meeting of national importance which has been held in Chicago for more than ten years, the local profession has organized and prepared elaborate entertainment for its guests, of a professional as well as social nature. The details of the latter will be announced later; the former will consist of a most scientific programme and clinics in all the branches of medicine, given in honor of the Association at all the prominent hospitals and infirmaries by the best clinicians in the city. There will be no private entertaining or operating to entice members away from the sessions, these clinics being held during the week preceding and the week after the meeting.

[illegible] E. Mayer is Chairman of the Committee of Arrangements, the members of which are some of Chicago's most prominent men.

[illegible] feature of the meeting of interest to Southerners is [illegible] will be presented free by a Tennessee, one Dr. Jones, and the surgeons which each year are of such interest will be by Southerners—in Medicine by Dr. John A. Wyeth, who [illegible] the name "Typhoid Fever," and in Surgery by Dr. Lewis Courey of Louisville, Ky.

[illegible] place of meeting of the general sessions and the Medical and [illegible] are well chosen, being central and close together. The [illegible] and exhibits will most likely be in the Masonic [illegible] building. This is here the home of the Chicago Medical Society, [illegible] the headquarters of those who desire to attend the [illegible] week before and after the meeting; and the Columbus Memorial Building, where many of Chicago's physicians office and the home [illegible] Medical Library; and the Venetian building, where lectures are often.

[illegible] that the performance in the South will attend in large numbers members and others who know the Association and its splendid [illegible] who should be members.

[illegible] tickets can be obtained at all [illegible] The annual Festival and Jubilee, given up under the auspices of the retail merchants, will commence the week before the meeting of [illegible] association, and arrangements have been perfected by which a single [illegible] will take you to Chicago and return. Among the many guests expected during the Festival are President McKinley and his Cabinet, President Diaz of Mexico and his Cabinet, and the hero of Manila, Admiral Dewey. Notwithstanding the immense concourse of people who will throng Chicago during the Festival, her doctors will see that their guests are well provided for; hotel accommodations will be ample and reasonable.

[illegible] official programme is now being prepared; look out for it, and [illegible] make your arrangements to attend this important meeting. [illegible] efficient and energetic Secretary, Dr. Henry E. Tuley, 111 West [illegible] street, Louisville, Ky., will be pleased to furnish any additional information that may be desired.

PREVENTION OF CONCEPTION.

[illegible] the *Southern California Practitioner* for July last, Dr. John C. King [illegible] article on "The Ethics and Prevention of Conception," advo- [illegible] in entirely too specious phrase and flimsy argument in favor of [illegible] against nature and nature's laws. In concluding he specifies [illegible] conditions in which it is admissible, viz: "1. When conception [illegible] prove dangerous to the mother." This should never be determined

on without the advice of the ablest additional consultant, if possible, consultants. "2. When the child would inevitably inherit serious and incapacitating disease." How in the name of all that is holy, righteous and *scientific*, even in this day of grand progress in medical science, is this to be determined? It is of such *doubtful* propriety that we cannot see where the *benefit* is to accrue, except to the income of an unscrupulous doctor. "3. When the parents are obviously unable to afford the child reasonable food, raiment or care." This is so damnable, heretical and murderous that we can only read it with horror, and we are not a Roman Catholic in our religious tenets; and would think it equally just to dash out on the lintels or door-sills the brains of the infants and children of these unfortunates—and they are numerous in this goodly land—who are in a similar unprosperous condition, whether due to the vicissitudes of fortune, laziness or indifference. Appreciating in the highest degree the discussion of all questions, freely and fully, as pertaining to the grand, holy and humane science and art of medicine, such articles as this are most apt to result in incalculable harm to the commonwealth, society and morals. The methods suggested by Dr. King—or, with due deference to one we have not the honor to know, we were about to write *knave*—we will not take time nor space to reproduce or discuss his methods. He is entitled to his opinions, but they are simply damnable.

WARNER'S POCKET MEDICAL DICTIONARY.—Warner's Pocket Medical Dictionary is an up-to-date work in every sense of the word. The latest medical terms have all been added, 10,400 words, terms and phrases are spelled, pronounced and defined. The definitions are concise and comprehensive. Type bold and easily readable. Paper and binding neat and espicially serviceable. Bound in flexible leather, round corners, colored edges. Complete table of arteries (6 pages), bacilli, spirilli, streptococci, micrococci, bacteria (11 pages), muscles (24 pages), nerves (12 pages), dose table (14 pages). This latter comprises a complete list of all drugs with their doses arranged in apothecaries' measure and their metric equivalents. Every one of its 413 pages is well written and will prove a valuable addition to the library of quick reference books of any physician. It will be sent to any address upon receipt of 75c., stamps or money order. Address W. R. Warner & Co., Philadelphia.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics at the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo.. Dallas, Tex., and New York, sole agents.

In Dressing Wound Surfaces or Abscess Cavities at the surgical clinic of the Charite, Berlin, it has been found that most excellent results are obtained by applying sterile gauze wet with a 10 per cent. solution of camphoroxol or menthoxol. The germicidal action of these applications are not only powerful, but also prolonged. Flabby, pale granulations soon improve under this dressing and healthy granulation is stimulated. The solutions are not at all irritant, and there is no danger of toxic effects from absorption. They are, indeed, medicinal preparations and may be advantageously used internally when a germicidal action is desired. They make a perfect dressing for the umbilical cord, applied in the manner described above. The solutions must be kept in a closed vessel, and not contaminated with organic matter. They seem to have no drawbacks whatever, being very stable and uniformly active.

In Most Cases of Summer Diarrhea the astringent action of the bismuth salts is a very desirable one, and if in addition the salt acts in a marked degree as an antiseptic the results obtained are necessarily more satisfactory. The faults as well as the merits of the older preparations are too well known to need mention. Certain it is, that with children particularly, an efficient and palatable form of bismuth is a desideratum. The report comes from the Children's Hospital at Berlin (Kaiserin Friederich Kinder Krankenhaus), that Bisol in 3 to 7½ grain doses given three times a day in aqueous solution, is followed by the best results in cholera infantum. Both diarrhea and vomiting were promply checked and recovery ensued in a few days. In addition, regulation of diet and the exclusion of milk are, of course, of prime importance. Like favorable results ensued in adults with acute diarrhea in typhoid, and in intestinal tuberculosis. Bisol acts well in gastralgia and vomiting from any cause.

An Efficient Eliminant.—Tongaline has been prescribed constantly by physicians during the last twenty years for the various forms of rheumatism, neuralgia, grippe, nervous headache, gout, sciatica and lumbago.

Every physician must be favorably impressed by the formula for Tongaline, and its record of remarkable cures has led many of them to declare it to be a specific for certain conditions.

The action of Tongaline is rapid and always beneficial. In the first place, Tongaline banishes pain. This is the first thing essential. The real cure follows when the poisonous waste materials which have caused the disease are separated and eliminated from the body by the stimulating effects of Tongaline upon the liver, the kidneys, the bowels and the pores.

The anodyne effects of Tongaline are not based upon morphine or opium, since it contains no narcotic.

All the ingredients are eliminative, and their action is so harmonious that the disease is corrected in many instances without the patient being aware of the action of the medicine, which is followed by no disastrous or unpleasant sequlæ.

All the salicylic acid used in Tongaline is made in the laboratories of the proprietors from the natural oil of wintergreen.

THE INFLAMMATORY CONDITION IN PERITONITIS, ETC.—An interesting reference to an extensively prescribed remedy is found in that valuvaluable text-book, "Materia Medica and Therapeutics," by Finley Ellingwood, A.M., M.D., Chicago. The substance of the article is to the effect that the influence as a pain reliever of the popular analgesic, Antikamnia, is certainly next to morphine, and no untoward results have obtained from its use, even when given in repeated doses of ten grains (two five-grain tablets). It is especially valuable during the progress of inflammation, and given in pleuritis or peritonitis, it certainly abates the inflammatory condition, relieves the pain at once and the diffused soreness shortly, as satisfactorily as opium. It does not derange the stomach or lock up the secretions. It is also of value in pain of a non-inflammatory character, and is a convenient and satisfactory remedy in headaches without regard to cause, if the cerebral circulation be full.

FOR SALE.—Splendid location for price of house and lot. One other doctor in territory 18 miles square. Good roads, schools and churches. Make yearly from $800 to $1,000; $1,400 for a place that cost $1,700. Easy terms; want to go to city. Address F. B. REAGOR, M.D., Flat Creek, Bedford County, Tenn.

SAPODERMIN is powerful as a germicide, non-toxic, non-irritant, non-corrosive. It is, however, absolutely soluble and very penetrating. It is healing, soothing and a skin nutrient. With all these advantages it must soon gain favor with not only the dermatologist, but also with the surgeon, the gynecologist and the general practitioner.

SANDERS & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics at the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo. Dallas, Tex., and New York, sole agents.

DO YOU WANT A GOOD HAND-MADE BUGGY? Then write to Wm. H. Palmer, Jr., Norwich, Conn., receiver of the Columbus Phaeton Co. He is closing out the entire stock at unusually low rates.

EDITORIAL.

OBITUARY.

Ross Dunn, M.D., Professor of Materia Medica and Therapeutics in lerbilt University, Medical Department, died in this city, July 30,

But few men in the history of the medical men of this city ever at-d a higher degree of esteem and appreciation. Although scarce a le had elapsed since taking his degree of M.D., he rapidly came to ront, and was marked for his professional attainments, his intense and st interest in all that pertains to honorable medicine, and his whole sional career was characterised by modesty, gentleness of manner, fishness, tenderness of heart, sterling integrity, and everything that ins to the true physician, the Christian and gentleman.

He received the degree of M.D. from the Medical Department of the ersity of Tennessee in 1889, and was made Demonstrator of Anatomy, ollowing year, discharging the duties of his position in a most satis-ry manner until the reorganization of the Medical Department Vanderbilt University, when he was selected for the Professor-of Materia Medica and Therapeutics, which chair he occupied until claimed him. His colleagues and future classes have sustained a indeed; and the alumni of the two universities with which he has connected will fully sustain this statement.

A representative meeting of the local physicians was held at the emy of Medicine Hall on Church street at 12 o'clock, July 31, ult., te appropriate action in regard to the death of Dr. Ross Dunn.

On motion of Dr. Duncan Eve, Dr. S. S. Crockett was made Chair-after which Dr. Harrington Marr was chosen Secretary.

As a committee to adopt resolutions, the following gentlemen were inted: Drs. J. B. Neil, C. A. Robertson, J. A. Gaines and Duncan

Addresses touching the life and character of Dr. Dunn were made by Duncan Eve, J. B. Neil, C. A. Robertson, J. A. Gaines, George H. , S. S. Crockett, and others.

Much was eloquently said to show the high esteem in which he was by the local profession, and indicating the profound sorrow and re-hat this calamity should have befallen his friends and co-workers.

The following is a copy of the preamble and resolutions as drawn e committee and unanimously adopted:

WHEREAS, It has pleased the all-wise and merciful ruler of the rse to remove from our association Dr. Ross Dunn, a gentleman of ng worth and attainments, whose future bade fair to take rank with premost of his profession; therefore be it

Resolved, That the medical profession of this city and State in his has lost one of its most accomplished and useful members, whose we greatly deplore, the community one of its best citizens, the h a zealous advocate, and in his home relation a fond and loving nd and father.

Be it further resolved, That we, the physicians of Nashville assem-do extend our warmest sympathy to his bereaved family.

Be it further resolved, That a copy of these resolutions be furnished mily, also the local press for publication.

"J. B. NEIL, M.D. *Chairman*,
"C. A. ROBERTSON, M.D.,
"DUNCAN EVE, M.D.,
"JOHN A. GAINES, M.D.,
"*Committee.*"

Reviews and Book Notices.

ATLAS ON FRACTURES AND DISLOCATIONS. By Prof. Dr. H. Helferich of Griefswald. Translated from the third German edition by J. Hutchinson, Jr., F.R.C.S. Sixty-eight superb chromo-lithographic plates, with descriptions, and 130 pages of treatise, illustrated by 126 woodcuts. Wood's Series of Medical Hand Atlases. Muslin, $3 net. WM. WOOD & Co.

The exquisite quality of the colored plates in all the atlases of this series is, if possible, surpassed by the execution of those illustrating this new volume. The first edition of this work was extremely popular in this country, and a very large number were sold. After being out of print for over a year, this third revised and enlarged edition will be welcomed on all sides.

The scientific faithfulness to nature of these plates is vouched for by the well-known ability of the distinguished clinician under whose supervision they were drawn and colored. The descriptive matter is printed on the page facing each plate, for convenience of study.

TWENTIETH CENTURY PRACTICE. An International Encyclopedia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In Twenty Volumes. Volume XVI, "Infectious Diseases." New York: WM. WOOD & Co.

Vol. XVI of this magnificent addition to medical literature, which was delayed, Vol. XVII appearing in its place, is now before us, and we think will be as often consulted and as highly appreciated as any of its valuable predecessors. The articles on Lobar Pneumonia, by Andrew H. Smith, M.D., of New York; Cerebro-Spinal Meningitis, by Prof. A. Netter of Paris; Dysentery, by A. A. De Azeredo Sodre of Rio Janeiro; Inflammatian, by Ernest Zeigler of Freiburg; Erysipelas, by Otto G. T. Kiliani of New York; Simple Continued Fever, by Landon B. Edwards, M.D., of Richmond, Va.; Relapsing Fever, by Leo Popoff of St. Petersburg; and Typhoid Fever, by Drs. John S. Thacher and John Winters Brannan of New York, are among

[illegible] practitioner is called upon [illegible] easily handled by [illegible] W. L., may become [illegible] of the tropical co[illegible] the first projection of [illegible]

[illegible] Digest of Advances, Dis[illegible] in the Medical and Surgical Sciences. [illegible] Professor of Therapeutics [illegible] in the Jefferson Medical College of Philadel[illegible] pages, 56 illustrations [illegible] & Co., Philadelphia and [illegible]

The [illegible] "Progressive Medicine" presents [illegible] papers upon the following [illegible] including Hernia, by Wil[illegible] of New York City; Gynecology, by John [illegible] of Philadelphia; Diseases of the Blood, Dia[illegible] Diseases of the Spleen, Thyroid Gland and Lymphatic System, by Alfred Stengel, M.D., of Philadelphia; Ophthalmology, by Edward Jackson, M.D., of Denver.

This volume shows more clearly than even the previous issue that in "Progressive Medicine" the practitioner possesses a narrative statement of the scientific progress of medicine made for him on a plan quite different from any of those heretofore employed. There is the personal element in every page of the book. Given certain subjects, men who are special authorities therein have deliberately set themselves the task of forming definite conclusions as to the value of the progress made in each, and have furnished the data for these conclusions—not in useless detail, but with sufficiently full statement to make the subjects clear. Such a personal presentation involves mature thought, large experience, and most careful handling on the part of the authors, but it is the ideal method of recording useful knowledge for the prompt service of the busy practitioner.

The high literary and scientific standard set by the first volume is amply maintained, and the several sections appeal to the [illegible] their very practical character. Thus in one conveni-

ent substantial volume, beautifully printed and abundantly illustrated, is given in practicable shape that which the busy physician requires for an intelligent comprehension of the real advance in medicine.

The warm welcome with which the first volume of "Progressive Medicine" was received is easily understood, and this second volume will surely increase the rapidly growing popularity of this quarterly.

THE MINERAL WATERS OF THE UNITED STATES, AND THEIR THERAPEUTIC USES. With an Account of the Various Mineral Spring Localities, Means of Access, etc. By JAMES K. CROOK, M.D., Adjunct Professor of Clinical Medicine and Physical Diagnosis at the New York Post-Graduate Medical School, etc. In one octavo volume of 580 pages. Cloth, $3.50 net. LEA BROTHERS & Co., Philadelphia and New York, 1899.

The medical profession and the laity will be equally interested in this, the first work which gives an authoritative and practical knowledge of the mineral waters of the United States. European nations have appreciated the health and wealth giving powers of their natural waters, but Americans have yet to learn that their own country contains the close counterparts of the best foreign springs, and that the American spas compare most favorably with the most highly developed European resorts in charm of scenery and surroundings and in facilities for comfort.

A complete and discriminating work on this subject has accordingly been distinctly needed. In the preparation of this volume every source of information has been covered. The immense mass of material has been reduced to usable form, and it is the author's belief that the physician will find in this volume by far the most comprehensive and practical account of the subject which has ever been written. It includes all the principal springs in use to-day. Every variety of mineral water is represented, and the essential considerations indicating the therapeutic uses of such waters are clearly given. The prescription of such remedial agencies is often the last resort of the physician, a fact establishing their admitted superiority to drugs in selected cases. Still more efficacious would be the earlier and discriminating use of appropriate waters, and it is the object of this work to afford all knowledge necessary to this end.

[illegible]

In this excellent work Dr. Hirt divides his consideration of [illegible] diseases into three parts—I. Diseases of the meninges: II. Diseases of the cranial nerves. III. Diseases of the white and gray matter of the hemispheres and the central ganglia. The author commences a treatment with regard to the spinal cord—I. The spinal meninges. II. The spinal nerves, and III. The substance of the spinal cord. In the diseases of the general nervous system he deals successively with diseases of the peripheral nerves, or diseases without [illegible] lesions; and secondarily those of the general nervous system with known anatomical basis.

The following quotations from Dr. Osler's introduction are worth [illegible]

"The monographs which seemed to me many respects so admirable a text-book that I wrote to Prof. Hirt and asked his permission to have it translated."

"The fact which makes the work of value to the teacher, the student and the practitioner, is the graphic description of anatomy and symptomatology of the different diseases."

"An attractive aspect of the work is the excellent character of the illustrations, which, as they are in great part original, will be a pleasing relief to the hackneyed cuts which have for so long passed from book to book in English works."

"Pursuing the *via media* in the important question of treatment, neither displaying the pessimism which too many maladies of the nervous system seem to justify, nor an optimism so flagrant as to savor of quackery, Prof. Hirt is a safe guide in the highways and byways of neuro-therapeutics."

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DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

CEREBRO-SPINAL MENINGITIS.*

BY DEERING J. ROBERTS, M.D., NASHVILLE, TENN.

Mr. President and Gentlemen:—In the twenty minutes allotted to reading a paper before you, I cannot undertake to go into a full discussion of so important a subject, one that has been brought most forcibly to our notice by the number of cases and their marked mortality during the recent months of late winter and early spring, and I shall therefore limit myself to my own personal views, which may be at variance with some, yet are the results of practical experience combined with a reasonable amount of study and investigation of the views of others as laid down in the standard works, and the no less important if somewhat ephemeral periodical literature.

This is an acute infectious, non-contagious, specific, inflam-

* Read at meeting of Nashville Academy of Medicine, 1899.

[illegible] of the vascular structures of the brain and spinal cord, occasionally sporadic, yet sometimes epidemic, depending in the former instance chiefly upon inoculation, and due to the [illegible] discovered by Wassermann in 1897, occurring most frequently in the warmer, during the hot weather, being the most serious disease, numbering most by sex, and with the greatest degree of fatality in the earlier years of life. In mortality [illegible] by Dr. J. Lewis Smith, only 71 occurred after 30 years of age. The greatest mortality exists at from 1 to 5 years, a period about one-third of the cases are found. [illegible] in the succeeding ten years, with a decided [illegible]—in fact, nearly one in one—in the first half of this period. In proportion to population a far greater number of cases occur in cities than in rural districts.

The high degree of mortality, ranging from 20 to even as high as 75 or 80 per cent., the rapidity with which it is fatal in many instances, the helplessness, if it does not [illegible] even more deplorable than death, and the more extensive prevalence in America than in other parts of the civilized world, excite in a high degree of interest on our part. As early in the history of this country as 1894 Drs. [illegible] Thos. Wright and J. C. Warren, by appointment of the Massachusetts Medical Society, made a very full report in regard to it; and ten years later Dr. Elisha North, in his admirable little treatise, gave a full account of the early epidemics; and Stiles's monograph in 1867, and Dr. Joseph Jones, gave details of later visitations in this country. The "Geographical Pathology" of Hirsch, and the Appendix of Osler's "Clifford Allbutt's System of Medicine," give us the most complete data from European observers. The periodical literature of the last half-century contains many articles from observers in this country; and in the excellent monograph issued by the Massachusetts State Board of Health the result of the classic studies of Drs. W. T. Councilman, F. B. Mallory and J. H. Wright during the epidemic commencing in Boston and neighboring towns in 1895, will be found the most important contributions to its recent pathology.

The following statement of Dr. Jacob Collins of New York, in Vol. X, p. 382, Twentieth Century Practice—Wood, is respectfully submitted:

"Clinically the disease occurs in very many forms, but usually two distinct types, the mild and severe, are described. And although a recitation of the symptoms of these two varieties may be made to include all the manifestations of every form of the disease, it is necessary to say in the beginning that no two cases in an epidemic will be counterparts. Some cases run an abortive course, others an intermittent and irregular one, but they all have distinctive symptoms in common. Frequently the severe or foudroyant form is common in the beginning of an epidemic, and the mild or abortive type toward the end."

Prof. Wm. Osler, in his Text-Book, groups the cases into three classes—the malignant, in which death may occur in five or ten or not more than 24 hours; the ordinary; and the anomalous; the latter embracing abortive, intermittent and chronic types.

Chas. Warrene Allen, in his Practitioners' Index—Wood, 1899, says that "malignant forms may end in death, following a mild delirium which lasts but a few hours," and "a protracted form of the disease which may extend over several months."

Archibald Church, in his late work on Nervous and Mental Diseases—W. B. Saunders, 1899, says "a fulminant case may end fatally in a day. Protracted cases extend over several weeks and some are clearly subacute."

The Boston Medical and Surgical Journal gives the following abstract from the Cavendish lecture recently delivered before the West London Medico-Chirurgical Society, by Prof. Wm. Osler, M.D., President of Johns Hopkins University:

"1. *Certain Features in the Symptomatology of Cerebro-Spinal Fever.*—No other form of meningitis presents a symptomotology of the same fulness—general, cerebral, spinal and peripheral features are present in every case. This results in part from the very frequent implication of the nerves, and to some degree is a consequence of the very chronic course. I shall discuss only a few of the important symptoms.

"(*a*) *Onset.*—In striking contrast to other forms, particularly the tuberculous, cerebro-spinal fever sets in abruptly. Without warning, while at work, or awakening the patient from a sound sleep, comes the pain in the head, etc. This peculiarity may also be met with in primary pneumococcic meningitis; but

in the form secondary to pneumonia, and in that which arises in endocarditis, latency of onset is the rule.

"(*b*) *Fever.*—There is no constant type of fever in any form of meningitis. In cerebro-spinal fever the pyrexia is very variable. There may be no fever at onset. Of our epidemic cases, all had fever on admission.

"(*c*) *Skin Rashes.*—Various skin rashes are common in cerebro-spinal fever, and form an important feature in the diagnosis. Of 21 cases which I saw during the epidemic, in 13 a skin eruption of some form or other was present. Herpes, of course the most common, was present in eight cases. A diffuse erythema about the chest and abdomen, and over the joints, was present in four cases. Petechiæ were noticed in eight cases, extensive only in three. In three cases a very remarkable and peculiar rash was present in the neighborhood of the joints, particularly over the extensor surfaces of the knees and elbows and about the ankles. There was a diffuse, livid erythema of great intensity, on which purpuric blebs developed—a vesicular rash, the individual vesicles of which became filled with blood. As the erythema faded and the vesicles dried, they could be felt as little nodular hemispherical bodies, which persisted for a week or ten days.

"(*d*) *Blood.*—A careful study of the blood was made in all of our cases. A leucocytosis was present in every instance. In four the first blood count was made on the third day, and the leucocytosis was 25,900, 14,500, 40,800, and 32,000 per cm.

"(*e*) *Arthritis*, or more often periarthritis, much more common in cerebro-spinal fever than in other forms, was present in two of our cases. In one case the joint lesion came on with great rapidity, and by the fourth day he had a multiple suppurative arthritis, resembling an acute pyemia. The diplococcus intracellularis was isolated from the pus in the joints. In the other case the disease began with arthritis.

"2. *Kernig's Sign.*—Described by a Russian physician and studied in Germany and France, this interesting sign has not attracted the special attention of English and American physicians, though J. B. Herrick of Chicago, at the last meeting of the Association of American Physicians, spoke of its value. It has been present in all of our cases in which it has been looked

for. It is, I think, an old observation that the subjects of protracted meningitis, particularly children, very often lie with the thighs flexed upon the abdomen, and with the legs in a state of partial contracture, so that they are with difficulty extended. To test for Kernig's sign the patient should be propped up in bed in the sitting position, then, on attempting to extend the leg on the thigh, there is contraction of flexors, which prevents the full straightening of the leg. On the other hand, in the recumbent posture the leg can be fully extended. Many patients with meningitis are not in a condition to sit up, and the test can be equally well made by flexing the thigh on the abdomen, when on attempting to extend the leg, if meningitis be present, the limb cannot be fully extended. Friis found the sign in 53 or 60 cases, and Netter in 45 or 50. It is stated to be present in all forms of meningitis when the spinal meninges are involved. The presence of the sign is no indication of the intensity of the spinal involvement, as it existed in a very marked degree in a recent case of pneumococcic meningitis, in which there was no positive exudate on the spinal meninges, only a turbid fluid. Netter's explanation of the phenomenon is as follows: 'In consequence of the inflammation of the meninges, the roots of the nerves become irritable, and the flexion of the thighs upon the pelvis, when the patient is in the sitting posture, elongates and consequently stretches the lumbar and sacral roots, and thus increases their irritability. The attempt to extend the knee is insufficient to provoke a reflex contraction of the flexors while the patient lies on his back with the thighs extended upon the pelvis, but it does so when he assumes a sitting posture.'

"3. *Lumbar Puncture.*—During the past ten years no single measure of greater value in diagnosis has been introduced than Quincke's lumbar puncture We are now able in a large number of cases to make a prompt decision as to the existence of meningitis, and are further enabled to recognize the form of the disease. I shall not detain you with details of the technique available in all text-books, and recently considered at great length in an elaborate 'Referat' by Neurath, in the *Centralblatt f. d. Grenzgebiete der Medizin und Chirurgie*, Bd. I. It is a simple, quite harmless procedure, and in a majority of the cases can be done without general anesthesia, or with the aid of a local

freezing mixture. A dry tap is rare in cerebro-spinal fever; the needle may be plugged with fibrin, or a nerve root may come directly against the orifice. Puncture in the third or fourth interspace may be negative, while in the second a free flow is secured. In one of our early cases in which no fluid was obtained the autopsy showed an exudate as thick as butter, with little or no fluid. A first puncture in a case is very often negative. Though simple, the technique is, like other procedures of the kind, bettered by practice. Very often at first a few drops of blood flow, then a clear or turbid fluid, either drop by drop, or sometimes in quite a strong stream.

"The fluid may be clear, turbid, purulent, or more rarely a brownish-yellow, or quite bloody. In a great majority of all cases when meningitis is present the fluid is turbid. In rare instances clear fluid may be obtained when meningitis exists, and in a protracted case the fluid may be turbid at one puncture and clear at the next. Several observers have noted that the fluid may become clear in the intermissions of the disease. A clear fluid may be obtained from a puncture in the second lumbar interspace, while lower down a turbid fluid may be withdrawn. I saw this possibility very well illustrated in a recent post-mortem; the fluid in the lower dorsal and upper lumbar regions was perfectly clear, while that in the lower lumbar and the sacral regions of the canal was very turbid and contained numerous flocculent masses.

"The fluid should be allowed to flow into a sterilized test-tube. When the fluid is at all turbid there is usually a slight sediment and a coagulation of fibrin. Cover-glass preparations are made either directly from the turbid fluid, or if the turbidity is slight and the cell elements few in number, after it has been centrifugalized. Cultures should be prepared at the time of making the lumbar puncture by allowing one or two cubic centimetres of the fluid to flow on a Loeffler blood-serum medium.

"The amount of fluid obtained varies from a few drops to 130 c.c. The samples in these flasks show the large amount which may be removed, one 126 c.c., another 112 c.c."

I shall not take up your time with a clinical description of the disease. This you will find in any of the text-books and standard works of the day. The clinical features given in the

article of Dr. Joseph Collins of New Yark in the tenth volume of Wood's Twentieth Century Practice, while brief, is remarkably graphic, clear, and in accordance with my observations, and more practical than the more extensive symptomatology given in the sixteenth volume by Netter of Paris. The latter article, hower, is full, thorough and comprehensive in all its excellent details.

When the disease is fully developed, or when an epidemic is in full sway, its diagnosis is quite easy ; yet in isolated cases and initial ones of an epidemic, we should be on the lookout when we find headache, backache, and intense pain in the back of the neck, with or without precedent chill, great degree of oppression, rise of temperature less in degree than we might expect from so marked nervous disturbance, hyperesthesia, changes in the pupil, contracted, dilated or irregular, stiffness of muscles of the neck, tendency to tonus in one or more muscles, pulse rate possibly but little accelerated, early and repeated vomiting of a projectile character, darting pains extending into the limbs, and even some of the joints becoming swollen and so tender and painful as to simulate acute rheumatism, early delirium or convulsive seizures. The macular eruption may somewhat resemble measles, or even variola, but there is a greater tendency to purpuric discoloration. When purpuric at the onset, accompanied by ecchymosis, a severe if not fatal case may be apprehended. The facies is usually expressive, denoting a serious condition, and the patient is restless, tosses in bed, imploring or demanding relief from the excruciating pain in the head, neck or back. Kernig's sign, or the inability to completely flex the leg when the thigh is flexed at right angles to the body, may be of service.

At a recent meeting of the American Academy of Medicine, Dr. J. B. Herrick of Chicago noted 19 cases with six autopsies, and said that this sign was present in 80° to 90°. Others have cited similar observations, and while it occurs exceptionally in other conditions, its early indication of muscular tonus causes it it to deserve consideration. It may disapperr early or extend into convalescence. It does not exist in tubercular meningitis.

The presence of the diplococcus intracellularis of Weichelsbaum in the spinal fluid which may be obtained by lumbar puncture is regarded as definite. They are most constantly to

lower dorsal and lumbar regions being marked—I might say emphasized. In another, death occurring on the eighth day, the pia-arachnoid was intensely injected, with marked effusion and thickening of the membranes at the base of the brain, the effusion of a pasty consistency, and could in places be lifted off in flakes with a flat spatula or director. The cranial portion of the cord was comparatively free from it, but it was quite apparent in the lower dorsal and lumbar regions. The central nerves seemed imbedded in it, as well as the posterior spinal nerve roots. In a third that I can call to mind, in which death was deferred until the fifth week, there was a general thickening of the membranes, with yellow patches marking where the exudate evidently had been, the ventricles were greatly distended with a dirty turbid fluid, and the brain substance of rather soft consistency and with a decided pinkish tinge. These autopsies were all made before the demonstration of the meningococcus intracellularis, and are reported from notes taken at the time.

The pathological condition we are called upon to meet is primarily a more or less intense congestion, blood-stasis and acute inflammation of the vascular envelopes of the brain and spinal cord, and the fibrino-plastic exudate, which may become more or less purulent resulting therefrom. How, then, shall we meet it? What measures of treatment shall be resorted to? With our limited knowledge, at the present day, as to prophylaxis, we have to depend on those procedures found efficient in other infectious diseases, of which, by reason of their general character, you are sufficiently informed. Possibly at some day in the near or distant future, when the natural history of its specific cause is better known, an antitoxin or some other means may be developed. As I do not consider the disease contagious, isolation I deem unnecessary; yet if a case develops in any locality, the possibility of the disease being localized there would justify its avoidance, especially by those in the earlier years of life, who are most within the range of its toxic influence.

I feel confident in the assertion that any of you who have had to contend with sporadic cases even, without considering epidemic visitations, have been more or less disappointed in reference to your standard authorities for aid in your treatment of this disease. Among the latest I find that in the first volume

of "Progressive Medicine," issued in March, 1899, edited by Hobart Amory Hare, the article on this disease, by Wm. Sydney Thayer, M.D., of Johns Hopkins, contains scarce one dozen lines, which I quote in full: "There is no effectual method of treatment. Counter-irritation to the spine, as Wentworth says, probably does nothing but increase the discomfort of the patient. The application of the ice-bag to the head is still employed, and hydrotherapy is of use in hyperpyrexia. Morphine may be needed for the pain.

"Stimulation and feeding are of importance, especially in the chronic cases, the use of the stomach tube being sometimes necessary.

"Recent researches have served to clear up the bacteriology of the disease, and have given us a certain method of diagnosis, lumbar puncture, and it is possible that further studies may lead to the production of a curative serum."

Wm. Osler, M.D., in the last edition of his splendid work, issued less than one year ago, devotes but little over one-half page to treeatment, which I epitomize as follows: 'In strong, robust patients the local abstraction of blood by wet cups on the nape of the neck relieves pain. General blood-letting is rarely indicated. Cold to the head and spine is of great service, a bladder of ice or ice-cap in one, and the spinal ice bag. Hydrotherapy if temperature is above 102.5°, or cold pack or sponging in private practice. Counter-irritation if thought necessary by touching lightly the back of the neck with Paqueline's thermo-cautery. Blisters of doubtful benefit. Opium may be given freely, morphia hypodermically preferable. Stille, he says, recommends opium 1 gr. every hour in severe, and every two hours in mild cases; von Ziemssen $\frac{1}{3}$ to $\frac{3}{8}$ gr. morphia hypodermically. Mercury has no special influence on meningeal inflammation. Iodide of potassium is warmly recommended by some writers. Quinine in large doses, ergot, belladonna and Calabar bean have had advocates. Bromide of potassium has been employed in milder cases, but is not so useful as morphia to control the spasms.

The diet should be nutritious, milk and broths while fever persists. Heubner recommends forced alimentation by the stomach tube. The cases seem to bear stimulants well, and

whisky or brandy may be given freely where there are signs of a failing heart.

So far as to my own views and observations, I regard with most favor the therapeutic meaures advised by Dr. Jos. Collins of New York, in the tenth volume of the Twentieth Century Practice, only I am in favor of a more active resort to general venesection. Dr. Collins says: "If the patient is robust, and particularly if the meningitis is not secondary to some disease that has exhausted the patient, topical venesection by wet cups at the back of the neck, or general venesection, is earnestly recommended." About 25 years ago, possibly a little more, an article in Gaillard's Journal, then published in Kentucky, from a gentleman in Mississippi, advocated very strongly general venesection as of prime importance. His report of cases and results were far in advance of anything I have seen before or since. I regret exceedingly that I have lost the copy of the Journal, and do not recollect the name of the writer. I will state, however, that I have bled quite a number of cases since that time, and in no case have I regretted it; and furthermore, many cases in which I tried to get along without it, it has been only too often a source of regret.

A full and free venesection, as early as possible after the disease is diagnosed, I believe will give better results than anything else. To be of the greatest benefit it should be early—the earlier the better—and an impression should be made on the patient. The pulse I do not regard, for I have in cases where it was quick and of diminished volume, observed it to improve. In children under 10 or 12 years of age, two to six or eight leeches, applied over the mastoid processes, are substituted for the lancet, though whenever applicable I much prefer the latter. Just so much blood is removed as to make a decided impression.

Possibly the change, either in the volume of the blood or its character, may to some extent sterilize so far as the meningococci are concerned. These germs have not as strong a hold on vitality as many others—*e.g.*, rubeola, variola, malaria, etc.—and possibly the change in the volume and character of the blood may prove to some extent germicidal, or possibly sterilizing, until something better is ascertained. Then again, by bloodletting I cannot but think that the tendency to effusion from

the vascular membranes is greatly lessened, and to a greater extent than by any other measures. I resort to it here as in croupous pneumonia, another germ disease, and on the same grounds, expecting to accomplish the same results, viz., a lessening of the activity of the primal cause, the specific germ, a lessening of the irritability of the tissues involved and lessening the amount, if not preventing *in toto*, the exudate. Meningitis may kill outright by intense blood stasis, or at a later period by the effused blood products.

In addition to venesection, have the patient placed in a cool, well-ventilated and quiet room, to which access is given only to such as are absolutely needed for attention or control. The hair to be cut short at once, with as little disturbance as possible. Calomel in ½-grain doses every half-hour until two or three grains are taken, then a full saline laxative, followed by an enema in an hour if needed to procure a full evacuation of the bowels. When free evacuation results, which I endeavor to secure as early as possible, a full hypodermic dose of morphia and atropia sulph.—not less than ½ grain of the former for an adult, repeating it from time to time in sufficient quantity and frequency to secure comfort if possible. Cold to the head and spine by the ice bag or ice cap, using cold cloths if the former are not at hand. Barthelow's suggestion of tr. opii deodorati and fl. ext. gelsemium I do not regard as efficient as the morphia hypodermically, although he gives 20 drops of each every hour or two. As to counter-irritation, blisters, etc., I agree with Wentworth—they only add to the discomfort of the patient. If effusion has occurred, I believe if we can maintain the vitality of the patient, iodide of potassium in full doses will afford us the best possible means of procuring its resorption. If vomiting is an early symptom, a drop of Croton oil in lieu of the saline after the calomel will be apt to give results, especially if repeated in 30 or 40 minutes—if not, then use the enema.

If the temperature should run high, cold or tepid sponging is resorted to; yet as long as it keeps below 103°, which it generally does, it gives me no occasion for apprehension. I have used ergot and the Calabar bean, but doubt their utility. A nutritive but fluid diet is looked after from the start. In any indications of heart failure, strychnia, digitalis and alcohol are

used. As to lumbar puncture, I am not sufficiently familiar with it to recommend it either for diagnostic or therapeutic results. I question the efficacy of withdrawing the fluid and the introduction of antiseptics within the membranes. If I am so fortunate as to secure a subsidence of the dangerous symptoms, morphia is gradually supplanted by the bromides, chloral, or bromidia, which may be combined with the iodide, which I continue until convalescence is fully established. The bladder must be looked after closely from the beginning, and the amount of urine be kept for inspection at each visit, the catheter being used at the first alteration in or cessation of the amount excreted.

Dr. Schirmer of New York has recently reported several cases of cerebro-spinal meningitis cured by daily inunctions of *unguentum Crede*, which is an ointment containing 15 per cent. of colloidal silver. It certainly will not interfere with the other measures I have suggested, and in so severe a disease, with so limited a therapy, is worthy of consideration; it may, however, only prove placeboic, and the cases reported may have been coincidental, as have many "one-swallow to-the-summer" specifics in this and other diseases. Dr. John Zahorsky of St. Louis, in a paper recently read before the St. Louis Biological Society, doubted its efficacy.

Warm bathing has recently been highly commended, but so far, my cases of late having been in private practice, in which there was a difficulty of carrying it out satisfactorily, I have not given it a trial.

I shall not trespass further on your time by considering the unfortunate sequlæ, such as blindness, more often deafness, mutism, paralysis, local or general, imbecility, interference with equilibrium, etc., which are rather to be prevented than cured.

BLOOD VITALITY—BLOOD INTEGRITY—BLOOD PURITY.

BY J. H. COOPER, M.D., OF FRANKLIN, TENN.

As Job has written, "the blood thereof is the life thereof," and we know that an essential of life is the blood, one of the most important of its vital elements being hæmoglobin, without a normal percentage of which the tissues are insufficiently oxygenated and poorly nourished. Iron has long been recognized as an important constituent of the hæmoglobin of the red corpuscles, and its use demonstrated as a therapeutic means of improving the condition and vital activity of the blood. For years and years iron has been a component part of the most satisfactory tonic combinations. A little over half a century ago, M. Burin-Duboisson demonstrated chemically that manganese was also a constituent of the blood, and that the red corpuscles contained about one-twentieth as much manganese as iron. A few years later M. Hannon and others used manganese most satisfactorily in the treatment of anemia, chlorosis, syphilis, scrofula and like conditions of deficient blood integrity or blood poverty.

Blood integrity demands rich blood, red blood, blood with plenty of hæmoglobin, and a proper amount of organic iron and manganese. In blood poverty we have a diminution of the fundamental red corpuscles, a reduced percentage of oxygen-carrying hæmoglobin, and as a consequence a diminished resisting power against more serious disease. In conditions of anemia and chlorosis, amenorrhœa and neurasthenia, dependent thereon as they almost invariably are, until within the last two years, while I have had a reasonable degree of success by the use of iron and other tonics, it has been nothing comparable to that since obtained by the use of iron combined with manganese in the excellent preparation known now so favorably and extensively as Gude's Pepto-Mangan.

From a translation of an article by Dr. S. Ascher, Hamburg, Germany, I quote as follows :

"It is well known that in the hæmoglobin of the red corpuscles manganese is constantly found in connection with iron. Opinions have always been divided as to the significance of manganese in the blood, as regards the question whether manganese is really a constant constituent of hæmoglobin or an occasional one. We know that the function of the red corpuscles to take up oxygen is chiefly attributable to the presence of iron, but an active part in this direction has also been ascribed to manganese. While in chloride of iron one-third of the chlorine is active, this property belongs to a still greater extent to manganese chloride, a combination of chlorine and manganese corresponding to that of chlorine and iron. Iron chloride is a much more stable combination than manganese chloride, which decomposes even at ordinary temperatures and gives off one-half of its chlorine ; it is, therefore, *quantitatively more active than iron.* Manganese as a constituent of the blood exerts a *stronger polarizing effect upon the oxygen*, and gives off the latter more readily than iron.

"*Manganese is therefore a more powerful oxidizing agent than iron*, and, absorbed into the body, will exert an energetic assimilative action."

In quite a number of cases in which the most important factor was a deficient or defective condition of the blood, Gude's Pepto-Mangan has acted like a charm ; however, I shall limit this brief paper to the epitomized report of the three following cases :

I. Miss P., æt. 34, unmarried, had been quite anemic, with menstrual disturbance for a number of months, and from a well-rounded form and perfect health had been reduced to a small, pale and peeveish little neurasthenic woman. When called to see her a few months ago, I prescribed Aletris cordial and Pepto-Mangan (Gude), with sherry wine. I also gave a gastro-hepatic pill to overcome constipation, which was present to an unpleasant degree. This was kept up for two weeks, when everything but the Pepto-Mangan was left off, it being continued for four weeks longer, when the transformation was complete, the dark clouds had drifted away as by magic, and she was herself again.

II. Miss C., æt. 17, schoolgirl, had suffered for several years with chorea and menstrual disturbance, had never been regular, quite anemic, and not been able to complete a full term at school for some years. Put her on Aletris cordial and Pepto-Mangan (Gude), the former having been discontinued at the end of four weeks, the latter kept up for eight weeks, together with sherry wine. The chorea was entirely relieved, menstruation became regular, and she is now the picture of health and capable of any duties required.

III. Miss J., æt. 22, unmarried, school-teacher, so anemic and neurasthenic that she thought that she would have to give up her school. I prescribed Pepto-Mangan (Gude) with sherry wine, which was continued for eight weeks. She continued her school, improving in every way, gaining 15 pounds in weight, and is quite herself in every way.

Other cases, differing in character, might be cited, in which blood poverty was equally as well met and combated, and blood vitality and integrity restored, with this excellent combination of manganese and iron.

Abstracts.

ON THE THERAPEUTIC USE OF THE COLLOIDAL METALS.*

BY DR. ARTHUR SCHLOSSMANN,
Tutor at the University of Leipsic.

The explanations of Dr. Lottermoser, published in the March number of the *Monatshefte*, in regard to the chemical

* From the Pædiatric Poliklinik and Nurseling's Home at Johannstadt, Dresden. Paper read before the "Gesellschaft fur Natur- und Heilkunde." Abstracted from *Therapeutische Monatshefte*, May, 1899.

properties of the colloidal metals, have at once raised great hopes as to the therapeutic results to be obtained from them. The preparation of silver, a metal never before usable in the pure state, in a soluble form most favorable for absorption, and of metallic mercury, so long employed, in a colloidal modification, seemed to offer possibilities of a most exact dosage and a very ready absorption. In the case of the Colloidal Silver the preparation was entirely new, and enables us to employ the medicinal properties of the metal itself. The salts only had been previously used; and these have very different actions in accordance with their acid constituents.

Dr. Schlossmann then proceeds to review the published experiences with the new drugs, more especially those of Crede, Weidmann, G. Schirmer, Wolfrom, Wedler, and Klien, with Colloidal Silver. The literature of Colloidal Mercury is as yet scanty, and the author can refer only to the results obtained by Werler and Hopf.

For more than a year the author has been conducting a series of physiological and bacteriological experiments with Colloidal Silver (Collargolum), and he finds that it is entirely, and positively so in therapeutic doses, non-poisonous. Injected subcutaneously, administered per os or per inunctionem, or applied intraperitoneally, to the extent of 1:360 of the body weight, he never saw any toxic symptoms. Mixed with milk containing a little sugar, the 1 per cent. solution of the drug is readily taken by children. A 1 per cent. solution in albuminized water had absolutely no effect upon either the healthy or the inflamed mucous membrane. Instillation into the eye caused no sensation, either in the author himself, his colleagues, or other persons experimented upon. Its application to other mucosæ was equally non-irritating.

From a bacteriological point of view the solution of Colloidal Silver was found to be extremely efficacious; more so than the sublimate. This was especially noticeable with the pyogenic cocci, the diphtheria bacilli, and the organisms belonging to the coli group. The addition of $\frac{1}{2}$ to $\frac{1}{10}$ ccm. ($2\frac{1}{2}$ drachms) of a 1 per cent. solution to the agar plates hindered all growth. Strewn in substance upon the surface of the plates, large sterile rings were always formed around it. The researches of Thiele and

Wolf (*Archiv fur Hygiene*, 1899) on the bactericide action of the metals show the significance of these results.

If after opening the peritoneal cavity of guinea pigs and rabbits, pus organisms, staphylococci and streptococci, or diphtheria bacilli, are introduced, and also a few pieces of silver in substance, the animals remain well, or at most are very slightly affected, whilst the control animals die. One year ago Dr. Schlossmann exhibited in the same society in which the paper was read a rabbit that had been thus treated with diphtheria culture and silver.

Bacteriological experience with Colloidal Mercury (Hyrgolum) is more scanty; yet it seems certain to the author that it by no means equals the silver preparation in antiseptic value. The mode in which solution is effected seems to be of importance. Solutions made with the help of albumin are less active than such as are made with water alone.

For theurapeutic purposes the author employed the Colloidal Silver as a salve in the form of the Unguentum Crede, and in 1 per cent albumin solution externally, internally, and subcutaneously.

With the Unguentum Crede he treated phlegmons, pemphigus neonatorum, post-vaccinial glandular swellings, scarlatina and diphtheria; in all eighteen cases. In phlegmon he believes that he has seen good results in some cases; but in others the progress of the disease seemed uninfluenced. The influence of the ointment in the glandular swellings of the acute infectious disease was more marked; quite regularly there was a rapid decrease in the size of the tumor, and many glands in which his former experience would have led him to expect suppurations, underwent spontaneous involution. And if his experiences in the more purely surgical affections were not so brilliant as some of the reports in the literature would have led him to expect, he thinks that it may have been dependent upon the technique of the inunctions, which plays an important part in the results obtained. Crede states that two-thirds of the inuncted silver reaches the tissue fluids; yet this must naturally vary in the different cases. Subcutaneous exhibition permits of more exact dosage; but subcutaneously he only employed the Colloidal in a few cases of deep seated glandular swellings. Ap-

parently the injections were as good as painless, and the results were satisfactory. Only in one case did subsequent abscess formation occur.

The author's most extensive experiences were in the use of the Colloidal Silver in acute conjunctivitis, above all in gonorrheal ophthalmia. One to 5 per cent. albuminous solutions were employed, being applied to the conjunctiva by means of a camel's hair brush. The results were very excellent in all cases, and he places the drug at the head of all the remedies at our disposal for the treatment of this often so obstinate affection. The instillations were quite painless. Improvement began with the first application, and not infrequently the children were discharged cured after four or five days.

Schlossmann employed a similar solution for instillation into the ear, but was not satisfied with the results in suppurative otitis media. This may have been mainly due to the difficulty in applying the curative solution to the affected area. On the other hand, he found the preparation of unequalled value in the treatment of colicystitis. He irrigated the bladder thoroughly with lukewarm water, and then injected 100 ccm. (3½ ounces) of the 1 per cent. albuminous solution. Its effect was instantly visible; in every case the temperature fell, the general condition improved, and the urine rapidly became sterile again.

Schlossmann also employed Colloidal Silver internally in acute intestinal catarrhs of infectious origin. A teaspoonful of the 1 per cent. albuminous solution was administered with a little milk or syrup every hour or two, the children taking it willingly. It is possible that the improvemement may have been partly due to the simultaneous regulation of the diet. But the author recommends the Colloidal Silver to all practitioners who treat these infectious intestinal affections with intestinal antiseptics as worthy of a place in the very first ranks of the drugs available for that purpose. Besides its great antiseptic power, it has the advantage of being absolutely non-poisonous.

With Colloidal Mercury (Hyrgolum) the author treated seven cases of infantile lues, six congenital, and one acquired at the age of a year and a quarter. He used inunctions of a 10 per cent. ointment made with cold cream; this can be readily inuncted into the skin. In all cases the syphilitic symptoms rap-

idly retrogressed; in no case did there occur symptoms of intoxication. He found that 2 grams (30 grains) per inunction was a sufficient quantity. It was very noticeable that the general condition of the children was in no way affected by this mercurial treatment. Under grey ointment the childrens' weight curve regularly remained stationary, or sank; under the Colloidal Mercury ointment the exact opposite took place. All the nurselings increased in weight while under treatment; one of them, in fact gained rapidly, to the extent of 200 to 250 grams (6⅔ to 8⅓ ounces) per week. In one case the author was able to demonstrate the admirable absorption of the mercury in this colloidal form. The patient was inuncted every second day with 2 grams (30 grains) of the ointment. On the second day demonstrable quantities of mercury were found in the urine. This was by qualitative test only. On the fourth day, in 850 ccm. (28 ounces) of urine collected in the meantime there was 0.0116 gram (⅙ grain) of mercury; in 750 ccm. (25 ounces) on the sixth day there was 0.0109 grams (about ⅙ grain). In another case the presence of a much smaller quantity only was demonstrated.

In conclusion the author states his conviction that silver in its colloidal state is an excellent, non-irritant and non-poisonous antiseptic that deserves to be tried not only in surgery, but also in all the various fields of internal medicine. No other remedy so quickly and thoroughly cures the infectious diseases of the mucous membranes, above all the blenorrheal ophthalmia of the new-born and colicystitis. Colloidal Mercury, on account of its minimum toxicity, ready absorbability, and prompt action, is also deserving of general attention.

In a note the author states his belief that simple solutions of the pure metals should not be employed, but that albumin to the amount of the beaten white of one egg to 200 ccm. (6⅔ ounces) of the solution should always be added, even when the drugs are employed as ointments.

LA GRIPPE—ITS MANIFESTATIONS, COMPLICATIONS AND TREATMENT.*

BY W. W. GRUBE, A.M., M.D., OF TOLEDO, OHIO,
Professor of Physiology and Clinical Medicine, Toledo Medical College, Toledo, Ohio.

Professor Grube sees no reason why the intelligent observer need err in his diagnosis of la grippe; he believes that the intensity of the catarrhal symptoms, the great prostration, and tardy convalescence, form a typic clinical picture. Though the catarrhal symptoms are usually limited to the respiratory mucous membrane, they are not always so, and in the writer's experience the invasion of the mucous membrane of the digestive tract has been quite frequent. Not alone mucous membrane, but a part or all of the cerebro-spinal axis has been invaded.

In many cases the so-called complications are simply an extension and aggravation of the catarrhal or inflammatory condition; thus an extension of the usual inflammatory condition of the throat through the Eustachian tube produces middle-ear complications; the bronchitis, too, may extend and become capillary, or even a pneumonitis may result. So we believe that in the so-called abdominal form with severe gastro-enteric catarrh, it may extend by *contiguity* and inaugurate a general peritonitis. Upon this theory alone can we explain the supervention of a severe general peritonitis in a case under our care, now happily terminating in convalescence.

The patient was a girl of 11 years, who had never been seriously ill before. Twenty-four hours after the illness began she had, besides the usual alarming symptoms of grippe, a high temperature, wild delirium, constant emesis, frequent and copious discharge of feces and urine. The appropriate remedies were prescribed, the vomiting ceased, and she rested; but on the third or fourth day she developed symptoms of peritonitis, ab-

* Abstract from the *Journal of the American Medical Association*, March 25, 1899.

dominal pain, hardness and some tympanites, etc. Calomel was prescribed, 20 grains divided into four powders, one every three hours; also the usual turpentine stupes, morphia to quiet pain, etc. The next day, finding no improvement, but rather aggravated symptoms, green vomit, bowels not moved—a very gloomy prognosis was given, and at the family's request a consulting physician was called, who concurred in diagnosis and prognosis, and had nothing more to suggest. On the writer's return in the evening, however, he decided in view of the great mortality of these cases by the routine treatment, to try the local application of a mustard poultice; also, for their germicidal, antiseptic and healing qualities, he gave internally Hydrozone diluted, in frequent doses, alternating with doses of Glycozone. In 24 hours there was slight improvement. In 48 hours the patient was decidedly better. Improvement continued, and the girl was so well on Feb. 21 that she was dismissed as cured.

Perhaps the most common complication in children is the middle-ear inflammation caused by extension of the pharyngeal catarrh up the Eustachian tube into the tympanum. In the case of a child 6 months old, recently under our care, we had a middle-ear complication in which the pain was controlled by the usual methods and by the instillation into the aural canal of a few drops of cocaine solution. After suppuration occurred, however, the canal was cleansed by Hydrozone solution (warm), and a piece of absorbent cotton saturated with Glycozone used as a dressing by inserting it into the canal. As the ear complications sometimes prove very serious, it is gratifying to know that in the above remedies we have a safe, speedy and effectual method of cure. We believe, also, that if these cases were seen early, by proper treatment the extension and consequent complications might be prevented. In a little girl with severe tonsilitis and pharyngitis we are now spraying the throat with diluted Hydrozone and applying Glycozone, with such marked benefit that on this, the third day of treatment, she is almost well.

In concluding Professor Grube states: "I cannot refrain
-ring to the case of a prominent city official who had
'y severe attack of la grippe. All the structures of
vities were involved in a severe acute nasal catarrh,

which progressed to the stage of suppuration. Enormous quantities of pus were secreted, and the location and intensity of the pain led us to fear involvement of the antrum. However, the free use of Hydrozone solution by spraying, and the application of Glycozone, soon cleared up the cavity, and in a few days complete cure resulted."

Selections.

BAPTISM DISEASE.—From the remarks of a writer in *Le Progres Medical* of recent date, it would seem that in France they suffer more than elsewhere from that unfortunate tendency to obscure medical terminology by appending personal names to newly-discovered diseases and newly-invented instruments. The writer alluded to treats this tendency as a positive malady, and designates it "baptism disease." The symptoms of this disease, he maintains, are generally cerebral ones, and the patient—usually a physician—is seized with an irresistible impulse to discover some disease and baptize it with his own name. The causes of the disease are not numerous, but very active. The subject experiences an immoderate desire to diffuse his name throughout the scientific world. In doing this financial considerations are not the primary incentives, though, of course, it is natural that an individual attacked by Spitzbube disease would like to consult Spitzbube himsef, so the name-giver obtains some of the benefits. The differential diagnosis of the disease is extremely difficult, as discrimination must be made between those who consciously give their names to instruments and diseases, and those to whose discoveries the medical profession has affixed the names of their proteges. Paquelin's cautery and Potain's aspirator and the needle of somebody else, might be taken as illustrating this difficulty of differential diagnosis.

Among the conscientious savants who escaped this malady must be mentioned the immortal Pasteur, who, seeing that no particular use would come from calling microbes by his own name, and distrusting his own knowledge of Greek, asked Lit-

tre to suggest one. The great lexicographer suggested the term "microbe," which he considered euphonious, and to which he subsequently accorded philologic recognition. Microbes, however, did not entirely elude the vagaries of baptism. The streptococcus and the gonococcus won their place in literature honestly and by their own efforts, but the colon bacillus endeavored to show its disputed parentage by calling itself Eberth's bacillus and Nicolaier's bacillus. It must be said for them, however, that they do not abuse these titles to nobility. The odorous bacillus of ozena has distinguished itself by the title bacillus of Lewenberg, though Nasenberg would have been more characteristic and felicitous. Exophthalmic goitre is a disease of very aggravated paternity. Some call it by the name of Basedow, and others by the name of Graves. Observing the propensity of goitre to collect proper names around it, one will not be surprised to learn that the operation of exothropexy should really be called the operation of Gangolphe-Joubelay-Poncet.

The manner in which these names come to be applied is very various. For instance, Professor Joblinson, at the end of a brilliant clinical lecture, designates one particular sign whereby he is able to differentiate infantile pneumonia from senile gangrene, and his admiring students immediately dub this "Joblinson's sign." This habit has prevailed to such an extent that medical nomenclature is now encumbered with such terms as the signs of Rosenbach, Koplik, Kernig, Olivier, Philippowiez, Stellway and Babinsko. We are stupefied by hearing of the symptoms of Millard-Gubler, Weber and Wichmann, and we are paralyzed by learning of such diseases as those of Cherchewski, Barlow, Stoker-Cadam, and Rougnon-Heberden. Not one of these fervid name-givers has so far bestowed his name upon syphilis. Diday maintained that Job was syphilitic, but the term "Job's disease" has not prevailed. During the famous outbreak of syphilis in the fifteenth century everybody endeavored to connect the disease with his next-door neighbor. It was called the Spanish disease, the French disease, and the Neapolitan disease. Some wished to connect it with the new world and call it the American disease, but Amerigo Vespucci protested. "If you wish," he said, "to give my name to something I have not discovered, give it to the West Indies." So America was

called by his name, first, doubtless, by some one suffering from baptism disease.

In conclusion, the writer asks pity from those who invent forceps and bistouries, and those who cultivate microbes. He asks pity for the students who cannot comprehend the significance of these various terms, for the practitioner who cannot return to school to learn them, and for the patient who does not want "apocalyptic neologisms," but active treatment. He urges a return to a simple and exact scientific terminology, and asks that in naming new discoveries there shall be displayed more modesty and less personal vanity.—*Medical Age.*

THE VALUE OF BEEF TEA AND EXTRACT OF BEEF.—The lay mind is more or less imbued with the idea that a food can be concentrated. The conception of the strength of an ox in a single bowl of broth, while generally left for the realms of fiction, has its counterpart in the less exaggerated view that the nutriment in several pounds of beef can be reduced to a few ounces of liquid. Modern physiologic teaching has largely disabused the medical mind of these fanciful ideas, but lingering traces of them are still found in the faith with which the profession prescribes beef extracts and beef tea. That the watery extract of beef in some way represents the nutrition of the beef still lingers in the professional mind, though the assertion has been over and over again disproven.

What is true of beef tea is also true of beef extracts, which are only watery infusions evaporated to a paste-like consistence. When added to water, the quality of the original beef tea from which they were made is restored. Beef tea is usually administered hot, and like all hot infusions, possesses a certain amount of stimulating power, In addition, it contains the salts, urea, and extractives found in the beef; these have a certain diuretic power, notably the urea.

Beef tea or beef extract may perform a useful function in the practice of medicine, where we wish to take away all food. As a therapeutic measure, the withdrawal of food is not resorted to as often as it should be. When all food is withdrawn, vigorous objection is soon made by the patient and friends. In such cases

the administration of beef tea will meet the views of the patient by furnishing him with what he believes is a very concentrated nourishment, but which is in fact a starvation diet. We believe that the relief value of beef tea and its hold upon the professional and lay mind are attributable to the fact that when it is administered some practically no food is being given. Many cases improve under the beef tea, and consequently it receives credit for possessing powerful nutritive qualities, when on the contrary it possesses practically none, and its administration has displaced food, which, if it had been administered, would have caused disturbance of the alimentary tract.

The efforts of manufacturers to furnish a liquid beef have thus far not met with brilliant results. A very good substitute, and one which is palatable, are the various brands of powdered beef. These are prepared by drying beef and pulverizing it and they make an excellent addition to vegetable soups. They contain all the nutritive qualities of the beef, and their digestion is accomplished without much difficulty. English manufacturers have prepared various forms of beef jelly, in which powdered beef is mixed with the extract; the most of these are not palatable, and while they represent the greater proportion of the nutrition of the beef, they are not more highly concentrated than is the beef itself; certainly not after the necessary water has been added to admit of its administration.

The most valuable form of the beef preparations is found in the predigested beef, either in the form of a liquid or evaporated to the consistency of jelly. In these preparations the proteids are changed into various soluble albumins or peptones and in this way are kept in solution. Their administration supplies the system with all of the nutriment found in the original beef.

We are satisfied that physicians pay too little attention to the domestic manufacture of beef extract. This is easily prepared in the average household, and as a rule furnishes a more palatable and reliable product than the manufactured article. If prepared in the right way it represents all of the nutritious properties of beef. Small meat presses are now to be found in the market which are operated by a screw, so that a very considerable degree of pressure can be brought to bear in expressing the juice. The method of procedure is to take a thick piece of beef

free from fat, preferably from the round, and place it upon the fire, which should be hot, so as immediately to brown the outer portion of the meat, leaving the albuminoids in the central portion uncoagulated. The press, which has been previously placed in hot water so as to bring it to a temperature of about 100°, is then taken out, the meat placed within it, and the juice expressed into a warm cup. Made in this way, beef juice contains a considerable proportion of the albuminous constituents of the beef and so represents all of its nutritious properties. A beef juice of this kind is very easily absorbed by the stomach and is quite palatable. It has no raw taste and it may be flavored by the addition of salt and pepper which have been added to the original meat. At the same time vegetables, such as onions and carrots, may be placed with the beef and their juices thus obtained, adding to the nutritious properties of the expressed liquid and imparting to it an equal flavor, which can be varied at will. —*St. Louis Medical Review.*

SURGICAL HINTS.—"All hypodermic injections may be rendered less painful and more readily absorbed if the active substance is dissolved in saline solution instead of plain water.

"In nursing women, every inflammation of the breast and nipple must be considered as having a bacterial origin, and should be treated like any other infectious process.

"In alcoholic coma always investigate the bladder. It is apt to be very full. If there is no stricture the urine would drain itself out after a while; but if prostatic or other stricture exist, a rupture of the bladder may take place.

"In administering chloroform to patients who have to be placed upon the side, as in some obstetrical operations, place them on the right side if possible, as the heart's action is much better under chloroform in that position than it is when the left chest is compressed against the table or bed.

"In men, the intense scalding during urination in acute gonorrhea may be relieved by urinating with the penis immersed in a vessel containing hot water. Women with gonorrheal urethritis may similarly be relieved by directing them to urinate while taking a copious hot douche, or while sitting in a warm sitz bath.

"After passing a catheter through a stricture with some trouble, it is better to wait a few hours before withdrawing it. If you do not, you may have just as much trouble in introducing another, whereas a catheter left in situ for a day or so, will dilate the canal and permit the passage of the constriction quite easy.

"In ankylosis resulting from disease still existing, passive motion is harmful. The only manipulation allowable in such cases, is for the purpose of placing the limb, if possible, in the most useful position. In deforming arthritis, knees should be straightened out and elbows bent to a rather acute angle under anesthesia. Then use rest with splints and ice bags to prevent inflammation.

"In women, climateric hemorrhages sometimes occur as the result of vasomotor disturbances, or of arterial sclerosis. It sometimes happens that several such hemorrhages take place prior to the final establishment of the menopause. Women at this period always attribute such an occurrence to the change of life; but the surgeon must invariably examine the patient on account of the strong chances of cancerous trouble."—*International Journal of Surgery.*

NEW TREATMENT OF PHTHISIS PULMONALIS.—United States Commercial Agent Atwell of Roubaix gives some information regarding Dr. Mendel's treatment for tuberculosis which has created considerable interest in Europe. The treatment consists in injecting daily into the bronchial tubes essence of eucalpytus, thyme and cinnamon, held in solution in olive oil. The oil descending slowly comes into contact with the walls of the tubes in the upper lungs. The vapor which is set free saturates the air in the lungs and acts on the mucous membrane as far as the air penetrates. Dr. Mendel has treated 16 tuberculosis patients and two suffering from simple bronchitis. In these cases he has noted, after a treatment of one or two weeks, a lessening or complete cessation of the cough and expectoration, as well as a return of sleep, appetite and strength.

[The above is taken from "Scientific Notes" in the *Scientific can* of Aug. 19, ult. Just what will be its future results, nly will tell.—ED. S. P.]

THE CURABILITY OF CANCER OF THE BREAST.—Warren publishes a list of seventy-two cases of cancer of the breast on which he has operated in the course of the last fifteen years. Of the seventy-two patients twenty-six were alive in June last and thirty-eight have died. Of the twenty-six living patients there are three who are now suffering from recurrence of the disease, and four who have had a recurrence but remained well up to the time the paper was prepared. Taking the three years limit as the gauge of success, the author finds seventeen such cases in his list. Of these patients two are dead, one dying ten years after the operation of apoplexy, the other after an interval of six years of sporadic cholera. In three instances operations have been performed for recurrence, and the patients are now alive and well, one three years, one four years, and the third ten years after the last operation. Of the remaining twelve cases the operation was performed in three over three years ago, in four over four years ago, and in two over five years ago, in one over nine years ago, in one eleven years ago, and in one over twelve years ago. It is evident, the author states, that high percentage of cures, or of good results persisting after an interval of three years, can be obtained only when cases are selected with some care. Before the percentages of success can be permanently placed so high that surgeons may hope to save over one-half of their cases, medical men must be educated up to that point where they will recommend an early operation and not wait until the case is hopeless before they send their patient to consult a specialist.—*Times and Register.*

DIAGNOSIS OF CANCER OF THE BREAST.—1. Classical signs of the cancer: *a.* Adherence of tumor to skin and deep parts. *b.* Retraction of the nipple. *c.* Hardness of the tumor. *d.* Early involvment of axillary glands.

2. In certain cancers of the breast these are not always all present.

3. Chronic mastitis and cancer of the breast. *a.* Hard to distinguish from beginning cancers. *b.* Usually occurs during pregnancy of after parturition, this not common with cancer. *c.* Edematous condition not seen in cancer; in which tumor does

not keep imprint of finger or only to a small extent. *d*. After retraction of nipple, but in a regular manner, surrounded by a circular ridge of skin which, if pulled out, will allow the nipple to stand out; this is not the case in cancer. *e*. Pain severe and attacks more frequent, while in cancer there may be no pain as long as there is absence of ulceration. *f*. Improve under the influence of rest and pressure.

4. Tuberculosis lesions of breast and cancer. *a*. Generally co-exists a regular pulmonary tuberculosis. *b*. Temperature changes suggesting tuberculosis. *c*. As in all tuberculous lesions, we see after awhile symptoms of local inflammation, often ending in fluctuation through the formation of more or less cheesy pus.

5. With all these rules for diagnosis we are still sometimes rather in the dark. In such cases our duty is very clear—operate at once!—*The International Journal of Surgery*.

THE STANDARDIZATION OF DRUGS IN THE FORTHCOMING REVISION OF THE PHARMACOPEIA.—The day of the infusion and decoction is gone, the day of empiricism is beyond recall; still we have some relics of the unreconstructed past in the lack of uniformity of certain drugs which are in daily use. The necessity for standardizing our fluid extracts and similar preparations ought to appeal to everyone; yet even in this era of exactness there seems to be some opposition to a system which will perfect the dosage and clarify many cloudy points in our materia medica, to say nothing of the mnemonic aid which such a plan will effect. The medical profession as a unit should join the medical press and the pharmaceutical houses in urging the decennial revision committee to adopt some definite standard.—*Medical Review*.

"IMPRUDENT HOMICIDE," is a term used by French courts. It evidently includes what is understood in English jurisprudence by the term manslaughter by misadventure. Recently a Paris physician was sentenced to two months' imprisonment for "imprudent homicide." The imprudence in this case consisted in [illegible] pair of forceps in the abdominal cavity after a lapar- [illegible] *St. Louis Medical Review*.

THE INJURIOUSNESS OF ARTIFICIAL TEETH.—Dr. Simpson, a Boston physician, evidently does not believe in the Italian proverb, "God gives nuts to those that have no teeth." He maintains that artificial teeth are unhealthful, primarily because they enable elderly people to eat meat and other things not good for those who naturally have no teeth. The teeth, he maintains, fall out at a certain period because nature intended that at this time of life a vegetable diet should prevail. This being so, artificial teeth become a source of danger to the welfare of the organism.—*Medical Age.*

ACETANELID POISONING.—Westcott (*Pediatrics*, June 15, 1899) reports a case of poisoning by external application upon an infant. Patient, female infant of four months. Breast fed; suffered greatly from heat, with considerable perspiration, which resulted in an intertrigo which had become almost eczematous. For this a dusting powder of fine acetanilid was ordered and used only once, when alarming symptoms arose. Powder was used at 10 a.m.; nursed and put to sleep. At 1 p.m., when taken up, the mother noticed a peculiar grayish pallor and bluish lips, the surface temperature apparently unchanged. Infant nursed well; went to sleep at 2:30 p.m. Skin waxy, face drawn and pinched-looking; at 3:30 appearance unchanged; child in a heavy slumber, not easily aroused. At 5 p.m. whiskey was given; cyanosis began to disappear. Recovery was thereafter uneventful. Numbers of cases of poisoning have been recorded since the introduction of acetanilid as an agent for wounds, but none in which toxic effects resulted from such superficial application as in this instance. Area of skin coveredwas very small. The use of acetanilid in infants as a dressing is undoubtedly dangerous to life.—*Columbus Med. Journal.*

TO REMOVE THE ODOR OF IODOFORM FROM THE HANDS.—Dr. Ricketts is authority for the statement that vinegar applied freely to the hands after they have been cleansed with soap and water will effectually remove the odor of iodoform.—*Medical Review.*

Editorial.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The annual meeting of this Association will be held in Chicago, Oct. 3 to 5. The general sessions will be held in Handel Hall, 40 Randolph street, the section meetings in the lodge rooms on the eighteenth floor of the Masonic Temple, and the exhibits in Commandery Hall, same floor.

Address of the President, Dr. Duncan Eve, Nashville. Tenn.; address in Medicine, "Typhoid Fever," Dr. J. A. Witherspoon, Nashville, Tenn.; and address in Surgery, Dr. Lewis McMurtry, Louisville, Ky., will occupy the general sessions.

In the medical section 18 papers, and in the Surgical section 33 papers, by active, progressive members of the Association, will be submitted, and the discussions thereon will be of an attractive character. Remember, one full fare to Chicago and return.

A Famous Expression.—Prof. Gibson, one of the pioneers in the development of scientific medical teaching in the United States, was asked by one of his students at the University of Pennsylvania how to obtain a comprehensive, accurate knowledge of medicine that would enable the physician to make a correct diagnosis, and execute proper treatment. Dr. Gibson's reply has become inseparably connected with his name and memory. It was "Principles, principles, principles." By this, of course, was meant that however varied were the manifestations of disease, they were to be comprehensively grasped only by a knowledge of the fundamental principles of physiology, pathology and therapeutics. The symptoms of disease, however manifold, could be intelligently interpreted only on this philosophic basis. Strictly consistent with this inexorable law is the fact that all conditions of depression and exhaustion of the system can be appropriately and effectively treated only by re-awakening the dormant and torpid nutritive functions. The crying need of the emaciated tissues and impaired vital functions is for food, the natural restorative. In most cases, however, there is not only an indisposition to take food, but the digestive organs are so enfeebled that they cannot digest and assimilate food—their functions are suspended.

The first indispensable step is to restore these functions. The ordinary tonics—iron, arsenic, strychnine, hypophosphites, etc.—fail en- accomplish this object. Cod liver oil is the heaviest burden on strongest digestive powers to prepare for assimilation—on the

atonic stomach it is an irritant—it aggravates the existing trouble. The digestive organs must be gradually coaxed into a condition of restored functions; they need stomachic alteratives, tonics and stimulants.

The best of these, as proved by experience, is Gray's Glycerine Tonic Comp. It has a specific, selective action upon the atonic digestive organs; it not only enables them to digest food, but it invariably promotes assimilation, so that reconstruction of wasted tissues and nervous force is absolutely assured. For this reason Gray's Glycerine Tonic Comp. is the most rational, scientific and effective remedy in all conditions of malnutrition, anemia and nervous exhaustion, occurring either independently as a consequence of organic disease, such as tuberculosis, or Bright's disease, or as the result of acute infectious diseases.

TRI-STATE MEDICAL SOCIETY OF GEORGIA, ALABAMA AND TENNESSEE.—The eleventh annual meeting of the Tri-State Medical Society will beld at Chattanooga, Tuesday, Wednesday and Thursday, Oct. 24, 25 and 26, 1899.

While some distinguished men from a distance are expected to be in attendance, it will be the aim to make this meeting of especial interest to the general practitioners of this section.

Those desiring to read papers should send titles to the Secretary, Frank Trester Smith, Chattanooga. The prospects are that there will be an interesting meeting.

LATENT RHEUMATIC CONDITIONS—The physician is freqeuntly called upon to treat patients who, though not ill enough to be in bed, are not at all well. Their appetite is capricious, they sleep indifferently, or even if they sleep soundly they are not refreshed, and in the morning they are more fatigued and ill at ease than was the case on retiring. Upon awaking there is frequently an aching sensation in the loins, sometimes in the lower limbs, which is noticed on getting out of bed or in dressing, particularly in putting on their hose or in lacing their shoes. As the day progresses this soreness may partially wear off, but there is at all times a vague, undefined, uneasy, painful feeling.

A competent examination of the urine in these cases will, in almost every instance, be found to disclose a notable absence of the soluble urates. On the contrary, it may be loaded with phosphates, and very frequently bile will be present, as also uric acid. If the condition remains neglected, the probable results will be sooner or later a pronounced attack of rheumatism in one or another of its forms. All that is needed to induce such a condition is a sudden change in the weather or exposure on the part of the patient to cold or wet, or a combination of the two. This is due to a latent rheumatic diathesis, to which every adult is liable.

In such cases the physician will find Tongaline in any one of its

forms, as indicated, given at short intervals with copious draughts of hot water, a remedy which goes directly to the source of the trouble. Tongaline seeks out the retained excretions or perverted secretions, which it either neutralizes or renders amenable to the physiological action of the emunctories, and then it brings to bear its strong eliminating powers, correcting the complaint promptly and thoroughly.

SOME MORE DONT'S.—The Dont's extant at this time are numerous, but there is room for a few more of a different kind :

Don't fail to renew your subsciption when the time has expired.

Don't fail to notify the publisher when you have changed your place of residence.

Don't fail to advise the office when you discontinue.

Don't leave this duty to the postmaster.

Don't forget or neglect to do the gentlemanly thing.

Don't throw the statement of your account in the waste basket and leave the publisher under the impression that the statement was not received.

Don't fail to make note of it when a bill is presented for payment.

Don't conclude that no personal honor is involved in unpaid dues on subscription.

Don't discriminate between debt due for your selected journal and one due you from your patient.

Don't forget that the golden rule is binding here as elsewhere.

And Don't forget that money is required to conduct a medical journal.—*The Medical Herald.*

TONIC APHRODISIAC TABLETS (Wayne), composed of phosphorus damiana, ext. nux vomica, saw palmetto and ext. cocoa, are manufactured for physicians' prescriptions only, and if you have a case of neurasthenia, impotency, general debility, dyspepsia, nervous indigestion, sexual apathy, paralysis, mental strain and overwork, hysteria, nervous headache or pre-senility, you will do well to give them a trial.

Dr. J. R. Smith, Bunceton, Mo., in a recent letter, writes that he has treated a number of cases of sexual debility so successfully with Tonic Aphrodisiac Tablets that it has been the means of helping him greatly in his profession.

Dr. H. M. Collins. late Surgeon Seventeenth Indiana Volunteers, writes : Tonic Aphrodisiac Tablets (Wayne) are the best he ever used for mental depression and melancholia.

Dr. E. S. Stuart of Covington, Ky. (Jefferson Medical College, Philadelphia), says : Tonic Aphrodisiac Tablets (Wayne) are a grand aphrodisiac, giving tone and strength to the nervous system.

Dr. Morriss Modricker, Wabash, Ind. (University of Berlin), writes

that it is not often he gives a testimonial in favor of preparations, but does so now, unsolicited, for Wayne's Tonic Aphrodisiac Tablets. He concludes by saying that they are the best that can be taken from the materia medica, to cure conditions indicated for their use, and having obtained such good results, will continue to prescribe them in his practice.

Dr. F. Carter of Shreveport, La., aptly remarks that Tonic Aphrodisiac Tables (like the well:aimed rifle ball) hit the spot.

URIC DIATHESIS.—Gave to a man with frequency of micturition, pain in back and bloating of stomach and bowels; with rheumatic pains in limbs, sleepless and nervous, with full feeling and eructations after meals, Lithiated Hydrangea (Lambert's) in doses of two teaspoonfuls after meals, and the following:

℞ Potassii bromidi..... ℥ iij
Extr. cas. sag. fl..... f ℥ iss
Vin. kola.....f ℥ ij
Tinct. cinchon. co. q.s. ft.....f ℥ iv
Signa. One teaspoonful in water before meals, and two teaspoonfuls before retiring.

He improved as if by magic, bloating, full feeling, eructations and all pain disappeared; sleeps well, and there is no undue frequency of micturition.—CHARLES H. SPRINGER, M.D., *Cleveland, Ohio.*

THE MEDICAL SCHOOLS OF NASHVILLE.

Our three medical schools, during the preliminary term extending through the month of September, have met with most flattering encouragement, and the classes now assembled at each indicate that the session of 1899–1900 will witness a larger attendance than any in their previous history. All having new and modernly constructed buildings, every advantage and facility is afforded for obtaining a thorough and practical knowledge of medicine and surgery. The free dispensary feature attached to each school, together with the City Hospital, afford all the clinical advantages that may be desired. The central location of Nashville, its railroad facilities, and its climate—not too hot nor too cold—the culture, refinement and well-known hospitality of its citizens, make it especially a desirable place for the medical student.

HEXAMETHYLEN-TETRAMINE, first recommended by Nicolaier under the name of Urotropin, as a genito-urinary disinfectant, has recently found very general application in gout and the uric acid diathesis. Aminoform, by which this chemical is now known, gives most excellent results in doses of 15 grains three times daily. This is best given in a

[illegible] glass of cold water and before meals, the drug being virtually [illegible]. Possibly the sedative effect which is noted is due largely to the diluent. It not only prevents the formation of urine and the [illegible] or uniform in character yet peculiar to the disease, but also favors the removal of the deposits already formed about the joints. It is, of course, invaluable as a germicide in the genito-urinary tract, producing astonishingly favorable results in most cases of cystitis. Its utter harmlessness, withal, is a feature by no means of minor importance. The drug may be taken continuously for months, and in large doses, without producing any untoward effects whatever.

A Want Felt and Filled.—If the doctor had never accomplished anything more definite in his life work than the relief of pain, than the amelioration of human suffering, he would not have lived in vain. It is all very well to say that pain is physiological, that it is the cry of the nerve for more blood; yet its continuance cannot be borne by the patient, even by the most heroic Spartan. Long-continued pain is dangerous, and while, of course, we never wish to obtund and remove it so completely as not to be able to ascertain its cause, and remove the same, yet the best interest of our patient requires from time to time the administration of that which is opposed to pain. Remedies like opium, which relieve the pain and at the same time are exhilirating and alluring in their effects, are most oft-times dangerous in the remote demoralization which they produce upon our patient. A remedy for the relief of pain which does not tie up the secretions, which carries with it no exaltation and no fascinations which tend in the direction of developing drug habits, is a desideratum. Five-grain Antikamnia tablets certainly meet this necessity. Antikamnia is also more prompt and decided in its action in labor than opium, and has none of the unpleasant after-effects. It may be continued in smaller doses to control after-pains, and rather favors than interferes with the secretion of milk.

The *St. Louis Courier of Medicine* has been revived, under the editorship of Dr. C. R. Dudley, in conjunction with Drs. Jos. Grindon, E. F. Smith and W. Shoemaker. The first number contains 80 pages of well-selected matter, and gives evidence of a prosperous future.

Reviews and Book Notices.

General Pathology: Or the Science of the Cause, Nature and Course of the Pathological Disturbances which Occur in the Living Subject. By Dr. Ernst Ziegler, Professor of Pathological Anatomy and of General Pathology of the University of Freiburg in Breisgau. Translated from the Ninth Revised German Edition by Drs. Theo. Dun-

ham, D. M. Foote, Philip H. Hiss, Jr., Walter B. James, Wm. G. Le Boutillier, and Matthias Nicoll, Jr., of New York; Dr. B. Meade Bolton, of Philadelphia, Pa.; and Drs. Leonard Woolsey Bacon, Jr., John S. Ely and R. A. McDonnell, of New Haven, Conn. Editor, Dr. ALBERT H. BUCK of New York. Complete in one octavo volume of 621 pages, profusely illustrated by 544 wood engravings in black and numerous colors, and lithographic plates. Bound in extra muslin at $5 net, and in brown sheep at $5.75 net. WM. WOOD & Co., 51 Fifth Avenue, New York, 1899.

This is unquestionably the most satisfactory text-book on pathology extant, and we can only reiterate our preceding commendations of former editions—full, complete, comprehensive and practical. From the author's preface to this ninth edition we quote:

"In the preparation of this new edition I have endeavored to take fully into account—so far, at least, as it is possible to do this within the compass of a text-book like the present one—the advances which have been made in general pathology and pathological anatomy during the last few years. At the same time I have been careful not materially to increase the bulk of the book. In order to accomplish these objects I have subjected all the chapters to a most careful revision, and wherever it seemed necessary, on account of some new light furnished by recent investigations, I have rewritten the text."

The chapter on the causes of internal diseases and on the inheritance of certain pathological conditions, will be found to supply not only a clearer bird's-eye view of the subject, but also more complete information than did the same chapter in the earlier editions.

The section relating to disturbances of the circulation remains unchanged in its general features, but has in many respects been made more complete, and is furnished with new illustrations.

In regard to retrograde disturbances of nutrition and infiltration of tissues, the chapters devoted to hypoplasia, agenesia, and atrophy, and that relating to pigment formation, have been greatly remodelled, and include the author's views in regard to the pathological absence of pigment. In the section devoted to hypertrophy and regeneration, the alterations and additions rendered necessary by the investigations of recent years have been introduced.

In the section on inflammation, the author's definition suggested in 1881, approved by many authors of ability, though combated by a few others, is maintained. In his presentation of the doctrine of infection, and the efforts of the organism to antagonize the effects of such infection, the most recent publications have been carefully consulted, and no facts of importance seem to have escaped attention.

The work of the translators, illustrators, and the publishers, is all in keeping with the earnest labors of the author.

THE TREATMENT OF PELVIC INFLAMMATIONS THROUGH THE VAGINA. By WILLIAM R. PRYOR, M.D., Professor of Gynecology, New York Polyclinic; Consulting Surgeon City Charity Hospital; Visiting Surgeon St. Elizabeth Hospital, New York City. With 110 Illustrations. Philadelphia: W. B. SAUNDERS, 925 Walnut street, 1899. Cloth, pp. 249. Price $2 net.

This volume is unique in being the first extended and systematized expose of this subject. It is, moreover, a most attractive description of the special methods practiced by the author most enthusiastically for several years. The causation and natural history of pelvic inflammation, are accurately described, and admonitions for its prophylaxis and early aggressive treatment are convincingly set forth. The author urges attack of septic processes while in the uterus to check its spread to the adnexa and prevent the alternation of chronic invalidism or a possibly dangerous operation later. He champions early section of the vaginal vault after retention of puerperal infections into the pelvis, which was first recommended by Henrotin, to whom this work is dedicated.

Conservative measures for the less trivial results of inflammations (hydrosalpinx, cystic degeneration, etc.) are insisted upon as strongly as the aggressive methods for more serious beginning infections. The possibility and modus of this work is shown in text and illustrations. It only requires a special table for elevating the pelvis in the dorso-sacral posture, and the special retractors, to make visual inspection of the pelvic organs after vaginal section easy, and all the conservative operations on the ovary and tube feasible. The advantages of exploratory colpotomy over celiotomy are formulated, and finally the indications and technic for vaginal ablation are considered. The au-

thor selects the lower route for hysterectomy in nearly all conditions requiring it, except in the puerperal uterus.

There is also included the author's cul-de-sac operation for adherent retro-displacement of the uterus, which consists in posterior vaginal section, severance of adhesions, and introduction of a gauze plug into Douglas' space to hold the organ in position, and over which aseptic lymph adhesions will form for its future maintenance.

The technic of irrigation of the uterus and curettage are also depicted and discussed. The local medicinal treatment of certain inflammatory conditions, such as gonorrheal or septic endocervicitis, by iodine applications, blood-letting and the douche, is recommended, but there is a most vigorous plea against the opium and poultice treatment of the graver suppurative forms of pelvic inflammation.

It will be useful to the practitioner in illuminating a dark page in the diagnosis of the several forms of this affection, and it will serve to impress its disastrous consequences if improperly or inadequately treated.

It will be very suggestive to the gynecologist, and will shy another castor among the methods of operative therapeutics.

PRACTICAL ANATOMY: Including a Special Section on the Fundamental Principles of Anatomy. Edited by W. T. ECKLEY, M.D., Professor of Anatomy in the College of Physicians and Surgeons, University of Illinois; Professor of Anatomy in the Northwestern University Dental School; Professor of Anatomy in the Chicago Clinical School, and Director of the Chicago School of Anatomy and Physiology; Member of the American Medical Association, the Chicago Pathological Society, etc.; and Mrs. CORINNE BUFORD ECKLEY, Instructor of Anatomy in the Northwestern University Woman's Medical School; Professor of Anatomy in the Chicago School of Anatomy and Physiology. With 347 Illustrations, many of which are in colors. 8vo, price $3.50 net, cloth; $4 net, oil cloth. P. BLAKISTON'S SON & Co., 1012 Walnut street, Philadelphia, 1899.

This is a new work, and a most excellent one. Although it is the first effort at authorship we have seen from Dr. and Mrs. Eckley, we hope that it will not be very long before they again essay their descriptive and instructing powers, and either make this a complete work on anatomy or give us one including such features as are left out of this. As stated in the preface, "gross

auatomy will be considered," the student being referred to Morris for the special anatomy of each individual organ.

We like the plan of the work exceedingly, and as a companion at the dissecting table, and for the purpose of fixing in the mind the many important details of the structure of the human body, it is most admirable.

The method of studying structures in the normal order in which they are exposed in dissection is followed, so far as is possible, and in the introductory chapter are certain rules, principles and generalizations which underly to greater or less extent the science of anatomy; and though these may be regarded as elementary, they will be of value to advanced students, and even to practitioners of experience.

The "baker's dozen" of pages devoted to the sympathetic nerve we regard as invaluable, and the frequent review quizzes will prove their worth in examinations.

The illustrations are most graphic delineations, many being from Morris' Anatomy, to which frequent reference is made.

While the work is written for beginners, it will prove admirable as a reference for the busy surgeon or practitioner.

A TEXT-BOOK OF PHARMACOLOGY AND THERAPEUTICS: or the Action of Drugs in Health and Disease. For the use of Students and Practitioners of Medicine. By ARTHUR R. CUSHNY, M.A., M.D., Aberd., Professor of Materia Medica and Therapeutics in the University of Michigan Medical Department, Ann Arbor. In one handsome 8vo volume of 728 pages, with 47 engravings. Cloth, $3.75 net. LEA BROTHERS & Co., Philadelphia and New York, 1899.

Practitioners and students alike will find in this book a clear guide to what most concerns them to know—namely, how to use drugs scientifically and efficaciously. Rational therapeutics is no dream, but a reality which is brought much nearer by such works as this. The reason underlying all drug-action is not only the intelligent but the easy way to grasp and apply it. Moreover, scientific methods brush away the unsupported claims made in behalf of new weeds and new chemical products, and simplify therapeutics by selecting from the immense mass only those medicines worthy of use.

The author bridges the gap between the fundamental medical sciences, such as physiology and chemistry, and clinical medi-

cine. He builds the principles of therapeutics on these unquestionably firm foundations, and details the special applications of each drug in disease. The pharmaceutical preparations and bibliography complete a work of the utmost service to everyone interested in the use of medicines.

The preparations considered are those included in the United States and British Pharmacopeias, and such others as seemed of sufficient importance, those most generally used being indicated by special type—small capitals.

THE HYGIENE OF TRANSMISSIBLE DISEASES: Their Causation, Modes of Dissemination, and Modes of Prevention. By A. C. ABBOTT, M.D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. 8vo, cloth, illustrated, pp. 311, price $2 net. W. B. SAUNDERS, 925 Walnut street, Philadelphia, 1899.

This is a very compact, comprehensive and much-needed work, in which practical hygiene or sanitary science—the art of preserving health or of preventing disease—and the methods employed in investigating the manifold phases of the subject, are very ably considered. After the introductory chapter are the following sections: Causation of Disease; Predisposing and Exciting Causes; the Causation, Modes of Dissemination and Prevention of Special Diseases; Prophylaxis in General Against Infectious Diseases; Important Precautions in the Management of Communicable Diseases; and Quarantine. A very full and complete index closes the volume.

In the preparation of this work only the most trustworthy authorities have been consulted, and only those precepts embodied that are now generally accepted by sanitarians as sound.

TEXT-BOOK ON DISEASES OF THE NOSE AND THROAT. By D. BRADEN KYLE, M.D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College; Consultant in Laryngology, Rhinology and Otology, St. Agnes Hospital; Bacteriologist to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Fellow of American Laryngological Association, etc. 8vo, cloth, pp. 646, with 175 illustrations, 23 in colors. Price, $4 net, in sheep or half-morocco $5. W. B. SAUNDERS, 925 Walnut street, Philadelphia, 1899.

Diseases of the nose and throat are considered in this excellent work in a clear and concise manner, and will prove not only

acceptable to the specialist, but to the student and general practitioner as well. The classification of the diseases is mainly according to the pathological alterations caused by them. The beautiful lithographs and original illustrations are made from specimens prepared by the author in his own laboratory, and the drawings are from cases under his own observation. The cuts of the instruments are mainly of those used by the author, and that have proved most satisfactory in his hands. As to treatment, Dr. Kyle says in his preface: "I have endeavored to be specific for definite conditions. While the doses given may seem positive, and even dogmatic, it is understood that the dose of the drug must be indicated by the symptom to be relieved. Considerable space has been given to certain diseases which are somewhat rare, in the belief that when information is wanted on such subjects it should be full and complete."

SCHLEIP'S MATERIA MEDICA AND THERAPEUTICS. A Manual of Materia Medica, Therapeutics, Medical Pharmacy, Prescription Writing and Medical Latin. For the Use of Students and Practitioners of Medicine. By WILLIAM SCHLEIP, Ph.G., M.D. Instructor in Pharmacy in the University of Pennsylvania. In one very handsome 12mo volume of 352 pages. Cloth, $1.50 net. LEA BROTHERS & Co., Philadelphia and New York, 1899.

This volume is intended to afford a condensed yet comprehensive text-book and work of reference on materia medica, therapeutics, and a range of cognate subjects which can be grouped with manifest advantage. In addition to the paragraphs covering the physical properties, physiological action, therapeutics and toxicology of each medicinal agent, chapters will be found on prescription writing, medical Latin, medical pharmacy and practical anesthesia. Tables of doses of poisons and antidotes and of incompatibilities, together with a therapeutic index of diseases and remedies and a general index, conclude a volume which it is hoped may prove of service to practitioners as well as students. It contains in a concise, definite and assimilable form the essential knowledge required in the most complete college courses n materia medica and therapeutics.

No care or expense has been spared to make this book as near pertect mechanically and typographically as possible, and the very low price at which it is issued should command for it a wide sale.

THE SOUTHERN PRACTITIONER.
AN INDEPENDENT MONTHLY JOURNAL,
DEVOTED TO MEDICINE AND SURGERY.
SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.
DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

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Original Communications.

MASTOIDITIS.*

BY HILLIARD WOOD, M.D.,
Professor of Diseases of the Eye, Ear, Nose and Throat, Medical Department University of Tennessee. Professor of Diseases of Eye, Ear, Nose and Throat, Sewanee Medical College.

Inflammation of the mastoid cells, while usually secondary to and caused by suppuration either acute or chronic of the middle ear, may be primary, and result from cold, traumatism, syphilis, or tuberculosis. Yet so constant is suppuration of the middle ear a forerunner of mastoiditis that in suspected cases the absence of tympanic suppuration either past or present almost excludes mastoidal inflammation. When we consider the close anatomic relations between the tympanum and mastoid antrum

* Read before the Upper Cumberland Medical Society at Gainesboro, Tenn., May 2-3, 1699.

and one, it is a surprise that mastoiditis is met with more frequently than it is as a complication and result of purulent otitis media.

The change in the mastoid process is most very gradually. In chronic cases, where the grade of inflammation is low and the drainage from the antrum and tympanum is good, the change often consists in the deposition of fibrous material, resulting in the obliteration of the cells and sinuses of the antrum—*e. g.*, in *osteosclerosis*. If in such a case the inflammation becomes more acute or the drainage interrupted, the pus will find it unusually difficult to burrow outward through this dense eburnated bone, and hence is likely to find its way inward toward the brain and give rise to some cerebral complication. I am persuaded that osteo sclerosis of the mastoid is often present in cases with chronic aural discharge, and that the condition is often overlooked; all the symptoms being attributed to the suppuration in the middle ear.

In other cases the mastoid cells and antrum become filled with pus which may drain out through the tympanum and external auditory canal, or else being retained may burrow upward into the brain, inward into the lateral sinus, outward through the mastoid, forming a subperiosteal abscess, forward into the external auditory canal, or downward, forming a collection of pus between the deep muscles of the neck.

The most favorable direction for the pus is, of course, outward through the mastoid cortex, where its presence beneath the soft parts is easily detected, and the indication for operative interference is obvious. But the burrowing of the pus inward to the cranial cavity, which is facilitated by osteo-sclerosis of the mastoid, gives rise to some one or more of the grave and often fatal complications, among which may be mentioned meningitis, extradural abscess, thrombosis of the lateral sinus with pyæmia, and brain abscess.

In young children the pus evacuates itself more readily than in adults for two reasons: first, because the bony walls are much thinner; second, because the sutural lines are less firmly united. Again, in infants and young children a collection of pus is sometimes met with between the periosteum and mastoid in cases where there is no pus or disease in the mastoid cells. In these

cases the pus from the middle ear makes its way outward between the cutaneous and bony wall of the external auditory canal, forming a post-aural, subperiosteal abscess. These cases I have seen, and have relieved by a simple incision for the evacuation of the pus.

The symptoms presented by mastoid disease vary with the degree of inflammation and the involvement of the surroundiug parts. In uncomplicatsd cases pain is the most prominent symptom. This is located in the mastoid, is deep-seated, and is often severe and persistent. The pulse is usually somewhat accelerated and the temperature slightly elevated, though the constitutional disturbance often bears no proportion to the extent of the local changes.

A most valuable sign of mastoid disease is tenderness upon deep pressure. In applying this test care should be used that the pressure is not made on neighboring regions as the soft parts of the external auditory canal, or over the Eustachian tube, else this sign may mislead.

Another valuable sign, rarely absent, is a swelling situated in the upper and posterior wall of the external auditory canal, deep in, near the drum. This can not only be readily be seen, but if touched with a probe will be found far more sensitive than the corresponding part of the opposite canal. This tumefaction is due to the close proximity of the inflamed mastoid cells, the postero-superior bony wall of the canal forming at this point the floor of the anterior mastoid cells.

Should the case become complicated with mastoid periostitis, we will have, in addition to the above signs, redness and swelling around and behind the auricle, the external ear being pushed outward away from the head, and being situated at the apex of the conical swelling.

Should meningitis develope, we will have added severe headache, high temperature, vomiting, paralysis of certain cranial nerves, particularly of the third and sixth; and in children convulsions, while in the adult we meet with delirium which passes over into coma and ends in death.

Thrombosis of the lateral sinus, complicating mastoid abscess, is characterized by sudden alterations in temperature, the changes varying from two to five degrees. These sudden eleva-

tions in temperature are due to septic emboli entering the general circulation. They may or may not be associated with a chill, and occurring at irregular intervals may escape detection unless the thermometer is frequently used. The phlebitis and thrombosis may extend downward involving the internal jugular vein, causing soreness and tumefaction on the side of the neck, the vein being felt as a hard, sensitive cord along the anterior border of the sterno-cleido-mastoid muscle. This condition continuing gives rise to pyæmia with all its manifestations, such as asthenia, hectic and multiple abscesses occurring, especially in the lungs, liver, joints and cellular tissue.

Extra-dural abscess is not rare as a complication of mastoid disease, and is characterized by persistent localized pain, which is increased on deep pressure. The temperature is slightly elevated.

Among the causes of brain abscess suppuration about the ear ranks first. These abscesses are most frequently located in the temporo-sphenoidal lobe, but may be in the cerebellum or elsewhere. These symptoms vary.

If a cerebral center is destroyed, we have an abolition of its function, as an abscess in the left Island of Reil and vicinity produces aphasia. A motor tract pressed upon or destroyed is followed by paralysis; while involvement of the cerebellum is sometimes accompanied by vertigo. Thus we may be enabled not only to diagnose the presence of an abscess, but to ascertain its location. Several of the foregoing conditions may at the same time complicate mastoid abscess, thus making our diagnosis most difficult.

The prognosis is simple. In uncomplicated mastoiditis submitted to judicious treatment it is good. In old standing cases of ottorhea where the mastoid has become sclerosed the danger of intra-cranial involvment is increased. Tuberculosis and syphilis aggravate the trouble, while old age adds to the gravity of the case. With the development ot intra-cranial complications the prognosis becomes far more serious, and yet with timely surgical interference many of the cases which seem almost hopeless may be saved.

The treatment of mastoid abscess may be divided into the preventive and the curative. Among the preventive measures

may be mentioned free incisions into the drum membrane to facilitate drainage. The continuous application of cold over the mastoid for not less than twenty-four, nor more than forty-eight hours, the use of local blood-letting either by Wild's incision or better still by leeches, together with rest and purgation.

Incisions into the drum, whether for enlarging previous openings, or making new ones, should always be liberal, and hence can usually best be made under general anæsthesia, especially in children.

The application of cold either in the form of an ice-bag or a Leiter coil is often most grateful to the patient, but should not be continued longer than forty-eight hours as the condition, if not then relieved, will need more radical measures.

Local blood-letting, by leeches, I have often seen offered the greatest relief, both temporarily and permanently. They not only relieve the patient for the time but sometimes arrest what seems to be a rapidly developing mastoid abscess. Wild's incision, so long wanted as a remedy in these cases, and even now endorsed by some high authorities, seems to me to have virtue only as a means of local depletion, in which respect I regard it as inferior to leeches. It is a painful remedy, and for days leaves a wound upon the mastoid. I have never seen any good produced by a Wild's incision which could not have been obtained more agreeably and efficiently by leeches upon the mastoid.

The foregoing measures will usually produce, if not a permanent cure, at least a lull in the case for from two days to a week, so that we are not usually compelled to adopt operative measures until a week or more after the disease began. But the disease persisting, or recurring after the use of the above remedies we should proceed without delay to open the mastoid. The indications for opening the mastoid laid down by Schwortze are four in number, as follows:

"1. In acute inflammation of the cells, with retention of pus, if œdematous swelling, pain and fever do not subside after antiphlogosis and free incision."

"2. In chronic inflammation of the mastoid process with subacute (periosteal) abscesses or fistulæ in the mastoid."

"3. With a sound cortex of the mastoid, on account of

cholesteatomata or purulent retention in the middle ear, which can not otherwise escape, and with which symptoms arise showing that the life of the patient is in danger, or when a congestive abscess has formed in the upper posterior wall of the meatus."

"4. When the mastoid appears healthy and there is no pus in the middle ear, but when the mastoid is the seat of long continued and unendurable pain which other means fail to relieve."

Schwortze's further advice not to operate when secondary meningitis, metastatic pyaemia or brain abscess has developed, while conservative, is not so generally endorsed by good operators.

The operation should be done under perfect anti-septic precautions, the details of which need not here be entered into or detailed.

Of the two methods of opening the mastoid, namely, by the drill, or by the chisel, the latter is much to be preferred, and is the one generally employed. The mastoid antrum which is our first objective point will be found situated from one-quarter to three-quarters of an inch beneath the bony surface. It is best reached by using the superior posterior margin of the bony meatus as a guide, and going inward close to the upper and posterior wall of the external auditory canal, until the entrance is reached. In case a fistulous canal is found perforating the mastoid cortex, it should be opened and followed to its origin.

The object of the operation should be not only to reach the antrum, but to remove all fluids, granulations and necrotic tissues, together with any sequestra or diseased bone that may be present. Indeed, by the operation, the honeycombed structure is converted into one large cavity, which can be packed with gauze and allowed to heal from the bottom, thus completely obliterating all cellular structure.

The three points of danger are the lateral sinus, which can be avoided by not going too far backward; the facial nerve and semi-circular canals, which can be avoided by not going too far inward and forwards; and the cranial cavity which can be avoided by not going too far inward and upwards. The best plan is to first enter the antrum, and then enlarge the opening as the diseased process may call for. The work must be thorough, and the operator should not rest satisfied until healthy

tissue is reached in every direction. The wound should be packed with iodoform gauze, and protected by a pad of cotton and a bandage. This dressing need not be removed for four or five days. Indications for an earlier change of dressing will be furnished by fever, pain, discharge, or odor. At each dressing the wound should be irrigated with either bichloride, or carbolic solution, and dressed as above described. The wound is thus healed by granulation, and the time required varies from two to six weeks.

The effect of the operation is not only to cure the mastoid disease, but to promptly relieve the otorrhea from which the patient has been suffering.

246½ North Summer street.

Clinical Lecture,

HYDRONEPHROSIS WITH MOVABLE KIDNEY.

BY RICHARD DOUGLAS, M.D.,

Professor of Gynecology and Abdominal Surgery in Vanderbilt University, Medical Department.

Gentlemen:—Thanks to the courtesy of my colleague, Dr. Altman, I present for your consideration this patient who has a most interesting history. She is a mulatto, aged about 40 years. The mother of several children, has enjoyed good health, has never suffered with any serious illness since womanhood.

Within the last two years she has complained of a heaviness, a dragging sensation in her right side and occasional paroxsyms of pain which she attributes to indigestion, but her trouble has not been sufficiently serious to interfere with her domestic duties until the last three weeks, since which time she has been confined to her bed and suffered with pain in her side and back, radiating through the abdomen. She has been almost constantly nauseated, bowels obstinately constipated, has frequent desire to urinate, but only a small quantity of urine voided, deep in color and of high specific gravity. The conjunctiva shows slight

jaundice, stools, however, natural in color. She had a variable temperature, marking as high as 102° but no decided chill.

Some few days ago the doctor discovered a swelling in the right hypochondriac region. This tumor has gradually enlarged while under his observation. She now presents upon physical examination, a decided tumor occupying the right hypochondriac and lumbar regions, extending from the costal margin to the crest of the ilium. The tumor is apparently fixed, does not move with respiration, exceedingly sensitive under manipulation; smooth, globular in outline; elastic, dull upon percussion except along its inner border, and the outline of the tumor can be felt extending further in toward the middle line than the area of dullness.

With the brief history which I have detailed and the physical phenomena displayed before you, we have for differential diagnosis an exceedingly interesting case. What tumors presenting these physical signs are met with in this region? There are many that we may mention, but the two which most concern us and which bear very similar symptomatology are distended gall bladder and an enlarged movable kidney. These two affections present such parallel symptoms that it requires the most careful investigation to draw a distinction. Both are frequently seen in women; they both arise from similar causes, tight lacing and relaxed abdomen from frequent child bearing. They are both likely to appear in middle life.

The history of a patient the subject of either of these ailments is very similar. They present in common digestive disorders, attacks of colic referred to the hypochondriac and lumbar regions; either may produce jaundice; obstinate constipation may be a prominent symptom in either one. Scanty and high colored urine is characteristic of hepatic as well as renal troubles. In either case, under certain conditions, there may be constitutional disturbances, such as chill or pyrexia. Yet while these symptoms appear in both cases it is well to note that in distended gall bladder the pain in the epigastric and umbilical regions radiates to the thorax and often to the shoulder, while it is the rule in renal troubles for the pain to be most intense in the lumbar region and radiate downward. Jaundice from obstructed biliary channels is generally absolute, and if the obstruction is

in the common duct the jaundice is unrelieved until the obstruction is removed, whereas in movable kidney the attendant jaundice is due to an associate duodenitis and possibly to pressure. It is transient, and never so deep as that due to obstruction, and the stools usually retain their natural color. It would appear that the urine by its quantity and character should make conclusive the distinction between a distended gall bladder and movable kidney, but this evidence is often negative. As confusing as the subjective symptomology is, we are equally impressed with the similarity in the physical signs.

In distended gall bladder and in a cystic or hydronephrotic right kidney the tumor lies in the right side. The liver may be so displaced that the distended gall bladder will appear as a lumbar tumor rather than hypochondriac; the kidney may be displaced so as to leave the loin and produce a tumor in the epigastric or iliac regions. Either tumor may move with respiration; this is only true, of course, of the kidney when it becomes adherent to the liver. In both instances the tumor may be smooth and elastic, in both there may be resonance upon percussion. Bearing such close resemblance to each other, how then do we distinguish an enlarged gall bladder from a displaced kidney? Subjective symptoms are of only relative value, and it will convey but little to your mind for me to describe the intense pain which attends the movement of a gallstone or its arrest in the common duct, and try to draw the distinction between that pain and the one which attends a displacement of the kidney with torsion of the ureter and its blood vessels. It is equally valueless for me to dwell upon any other symptom of which the patient may complain—but let us take the phenomena of jaundice.

The jaundice of obstruction of the biliary channels producing a distended gall bladder also produces an enlargement of the liver. The jaundice that attends a movable kidney is not likely to affect the hepatic circulation, so that in one we have an increased area of hepatic dullness, in the other we have not. The shape of the tumor is of value. In moderately distended gall bladder the tumor is pyriform or globular in shape; in renal tumors, whether solid or cystic, the general contour of the tumor retains something of its kidney shape. Unless fixed by

adhesions a distended gall bladder responds to the action of the diaphragm and ascends and descends with inspiration or expiration. The kidney, unless as above stated, it is attached to the liver by acquired adhesions, is uninfluenced by respiration.

Upon manipulation we may move a gall bladder within a certain radius laterally ; we cannot push it up to any extent, nor can we depress it. The kidney, however, when movable, has greater movement in an upward and downward direction as well as laterally. If we make our patient assume a dorsal posture and elevate the hips, the kidney may be made to disappear under the costal margin. If we now raise her to a sitting posture we can feel the organ descend from its bed.

Manipulation of the kidney produces nausea and faintness; a gall bladder is not so sensitive. As a rule the gall bladder is dull upon percussion; it is only when adhesions have matted the colon or small intestines to it that we have resonance. Therefore, when you have resonance in a distended gall bladder, you always have a history of localized peritonitis. This is not true in the case of the kidney. Lying as it does behind the colon, we have an area of resonance over it, and it is only in large tumors with outward evolutions which force the colon inward that this line of resonance disappears. When the question of differentiation between a distended gall bladder and a hydronephrotic kidney presents itself, some value may be attached to the quantity of urine voided within a definite period, but much more accurate information can be obtained by cystoscopy and catheterization of the ureter, after the method of Kelly. If the hydronephrosis is due to torsion of the ureter, and there is accumulation of urine in the pelvis of the kidney, the catheter in the affected side will show an absence of urine from that ureter, while the left will be found to be doing all the work. Now, in distended gall bladder we may have very scanty urine, but it will flow from both ureters. You may think there would be constitutional symptoms, uremic in nature, upon which we should rely for further differentiation. It is to be hoped, gentlemen, that you will reach your conclusions and will have resorted to surgical interference before your patient reaches this critical stage.

Now, applying our rules to the patient before us, we find

that the preponderance of evidence is in favor of the diagnosis of enlarged kidney. She is passing through one of those crises described by Dietl which occur in the history of movable kidney. The circulation of the organ is impeded because of the torsion consequent upon displacement. The ureter has become kinked or twisted upon itself, and this tumor which has appeared within the last week or ten days and progressively increased in size, we believe to be due to an accumulation of urine. The condition is one of hydronephrosis. Ordinarily these attacks pass off and the patient is relieved, but in this case her symptoms seem so pronounced that I urge an operation, fully mindful of the fact that this condition of movable kidney and present obstruction may be associated with renal calculus. The patient will be prepared and operated upon before you at a later hour.

[NOTE.—The patient objected to operation, and in a few days there was an abundant flow of urine. All symptoms subsided, and there remained only the movable kidney.]

(Reported especially for The Southern Practitioner.)

Abstracts.

ABOUT UROTROPIN.*

BY DR. KNUST, NEUSTADT, WEST PRUSSIA.

Urotropin has lately been introduced into the therapy of renal and vesical diseases, and possesses the faculty of dissolving uric acid (probably by the formation of formaldehyde, which is found in the urine after its administration) and of sterilizing the urine. It is therefore a disinfectant which may be used in cystitis, pyelitis, and other similar diseases.

Knust has employed it in several cases of excitable and more or less unmanageable mental disease suffering from these affec-

*Abstract of a paper read at the Sixth Session of the Northeast German Psychiatric Union, held at Westerplatte near Danzig, July 3, 1899; from the *Psychiatrische Wochenschrift*, No. 16, July 15, 1899.

tions, and with the most excellent results. Especially brilliant was its action in one periodic case, with persistent excitation, in which at the beginning of the attack the urine was still acid, but faintly cloudy, and got more and more turbid, and more and more loaded with mucus, pus, and micrococci as the seizure progressed. The prostatic hypertrophy and the patient's excited condition rendered catheterism and lavage impossible. He was, therefore, on February 23d, ordered to take Urotropin in 0.5 gram (7½ grains) doses four times daily. Even in two days the urine was improved, and by March 3d it was faintly acid and clear. For a time his condition got worse again each time that the Urotropin was stopped; but by June 10th it could be discontinued. The patient's weight has greatly increased since he has been on the Urotropin.

The second case was one of senile dementia with a high grade of prostatic hypertrophy, and incontinence of urine to such an extent that the odor of the patient was extremely foul. Here the Urotropin gave results similar to those of the first case, and more especially lessened the unpleasant ordor from which the whole ward was suffering.

In a third case there was an equally rapid if not permanent effect.

Selections.

Involvement of the Eye and Ear in Cerebro-Spinal Meningitis.—Having been consulted by several practitioners lately upon the above subject, and as there seems to be considerable of the disease in our State just now, I thought it well to give such symptoms relating to the eye and ear as may be of help in making out the diagnosis. It is the epidemic form of cerebro-spinal meningitis I wish to especially refer to, and in this form catarhal conjunctivitis often appears in the beginning; the cocci of meningitis has, however, never been found in the conjunctival surface. Œdema of the conjunctiva and lids occurs sometimes early in the disease, and usually means a simulta-

neous invasion of the orbital tissue with the meninges. Again, it occurs later and is frequently metastatic, or the invasion may be through the superior orbital fissure of either or both orbits or along the veins. This may go on to suppuration with protrusion of the globe, and a characteristic edema of the lids, which extends only to the bony ridge of the orbit. This, of course, interferes with the movements of the eye or eyes; vision may not be disturbed much unless there be involvement of the globe itself.

The motor nerves of the eye are, of course, frequently involved, as the base of the brain seldom escapes invasion ; this involvement of the nerves may be paralytic or from irritation. Knies, pages 150 and 151, says : "Leichtenstein, who reported 29 cases of epidemic meningitis, found that the abducens was attacked most frequently, the motor oculi very rarely ; in the hydrocephalic stage there was slight bilateral ptosis in one case, weakness of internus in one case, and inequality of pupil in one case ; pupil sluggish in two cases. In one case there was isolated abducens paralysis, although all the nerves were imbedded in exudations and both motores oculorum nerves were very much reddened. In one patient there was paralysis of all the ocular muscles, including the levatores palpebrarum, but the pupil reacted to light. Nystagmus was observed several times. Spasms and paralysis have a peripheral character."

Conjugate deviation of the eyes is sometimes present. Photophobia is often present, especially if there is any general hyperesthesia. Invasion of the cornea being usually neuroparalytic, does not produce much fear of light. Suppuration of the cornea is very rare ; the parenchyma may become opaque. A xerosis of the cornea may result from its exposure for a long time, the result of imperfect closure of the lids. Foerster saw two cases of deep sub-epithelial infiltrations of the cornea in 28 cases of epidemic cerebro-spinal meningitis. What is called febrile herpes of the cornea sometimes follows neuroparalysis.

As to the iris, if there is much increase of pressure the pupils are liable to be dilated ; there are exceptions to this rule, however. One or both pupils may react to light, even when the patient is blind—especially if this blindness is the result of an involvement of the visual cortex. Senator (*Charite Ann.*,

xi, page 284) has seen iritis with meningitis; rapid muscular action of iris, alternating dilation and contracteon of pupil has been observed, more common in tuberculous meningitis. Of course, in involvement of the ciliary body and choroid, we have also an inflammation of the iris. Bock (*Wiener med. Wochenschr.*, 23, xi, 1889) is the only one who has reported cataract,—not secondary to disease of choroid, etc., after meningitis; (his diagnosis of meningitis is disputed, however); secondary cataract is not so unusual.

The choroid, and with it the whole uveal tract, is often involved. The most usual form of inflammation is seroplastic and afterwards purulent. Involvement of the choroid may be metastrtic, but often the invasion is simultaneous with that of the meninges; the deposit of the coccus, then, in the two tissues must be simultaneous. Knies (p.) 155) says those two tissues, being developmentally alike, make this theory more plausible. The disease is often unilateral. It may come at any stage of the disease, or even some weeks afterwards; such eyes usually grow soft and shrink, the lens degenerate, the cornea often remains clear.

In the seroplastic form, the exudation into the vitreous chamber, with its yellowish color, bloodvessels running over it, and small hemorrhages on its surface, closely resembles a glioma; if in much doubt, enucleation under the circumstances is indicated, but it is usually a pseudo-glioma. Of course, in a case in which there is no doubt of meningitis, the probability of there being a glioma of retina is reduced to a minimum.

Involvement of the optic nerve may be from direct extension, metastatic, or by direct invasion. The optic and accoustic nerves are the most common of the nerves of special sense to be involved, the optic nerve the most common. The nerve and its sheath both become involved. The inflammation is from a simple hyperemia to that extent in which the location of the head of the nerve can only be told by the convergence of the retinal vessels. Its inflammation is one of the most important diagnostic points in meningitis. "In extreme cases the papilla is not much swelled, and hemorrhages and exudations are rare." (Knies, page 152). The disease is generally bilateral. Prognosis is, of course, bad, yet some cases recover with perfect

vision; others well with greatly reduced vision and contracted visual fields; color-sense is often involved; perfect vision is rare. Knies says (page 153) that when it occurs early it is of the greatest importance in excluding typhoid fever, pneumonia, etc. He also says, "optic neuritis is found in a majority of these cases."

When the convexity of the brain and the cortical sight-centers are involved, blindness may result, temporary or permanent, with no opthalmoscopic symptoms. They may show later in an atrophy.

During and following the recent epidemic in Webster county, this State, I saw many cases of loss of sight and hearing. Most of the cases of blindness were from optic-nerve atrophy.

In considering the involvement of the ear I shall quote from Dench, pages 577 and 578. He says: When the meninges are invaded by the specific germ of "epidemic cerebrospinal meningitis," the inflammatory process extends along the lymph-channels of the vestibular and cochlear aqueducts, and involves the structures located within the bony labyrinth. During the early stages, both the perilymph and the endolymph are increased in quantity, while at the same time their composition undergoes a change threugh the action of the specific germ. Later, the bony walls are the seat of the inflammatory changes, both the arteries and veins become dilated. There is a migration of white bloodcells into the surrounding tissues, and true tissue-hypertrophy takes place. From the extensive proliferation of the bloodvessels themselves in the newly deposited tissue, the walls of these channels are of unusual tenuity, and rupture easily. Hence, extravasation of blood constitutes one of the conditions found. The newly deposited tissue increases in density and may be transformed into bone, in which case the semi-circular canals or cochlea are partially or completely obliterated. In other portions the chief force of the disease expends itself in tissue-necrosis, the labyrinthine channels being filled with pus. Occasionally the tympanum is invaded secondarily by a rupture of the membrane at the round or oval windows, allowing the inflammatory products to escape into the middle ear. From the tympanic involvement the drum-membrane is soon destroyed, and a purulent otorrhea manifests itself. Naturally, this condition is

somewhat rare, as death takes place before sufficient time has elapsed for its completion.

In addition to the symptoms characteristic of meningeal inflammation, we have vertigo, sudden loss of hearing, and intense tinnitus. In very young children the vertigo may be the only evident symptom, on account of the age of the patient. Occuring in older individuals, the access of subjective noises is usually sudden, while their intensity is so great as to be agonizing. The hearing is either completely destroyed at once, or this condition occurs at the end of a few hours after the appearance of the symptoms. Preceding these marked evidences of labyrinthine invasion the power of audition may be abnormally acute, probably from the hyperemic condition of the labyrinthine structures. This hyperacousis may be so marked that faint sounds even are painful, the patient starting at the slightest noise, and complaining of an increase in the headache characteristic of meningitis. After a short time the subjective noises diminish, owing to the destruction of the terminal filaments of the nerve, and the hearing remains profoundly impaired for the same reason. The power of equilibrium gradually returns, although this is more slow, perhaps, than the disappearance of the subjective noises. The involvement of the middle ear is evidenced by the ordinary symptoms of acute purulent inflammation when arising from any other cause than that under consideration.

The body of the nerve is often the one involved. Deafness may be also the result of implication of the cortical center, one and two temporal convolutions. Word-deafness is then a common symptom. The sound is heard, but not interpreted. By means of the galvanic current and the tuning-fork differential diagnosis can be made here.

Deafness the result of epidemic cerebro-spinal meningitis does not increase after recovery from the primary disease; the hearing is more liable to increase than to diminish, when the labyrinth alone is involved. When the trunk of the nerve or the cortex are involved the symptoms go as the meningitis progresses or recedes. When the trunk is involved the middle part of the musical scale is interfered with; conversation is therefore prevented; there is simply impairment of the hearing. When the lesion is labyrinthine, in the early stages there is distressing

tinnitus. When the nerve trunk or cortex alone is involved there is no tinnitus. When pressure upon the cortex or nerve-trunk is made tinnitus ceases. If the lesion is in the labyrinth the lower tone-limit is usually normal, and the upper tone-limit lowered. When the middle ear is at fault instrumental examination shows it.—*Prof. Wm. Cheatham, M.D., of Louisville, Ky., in Philadelphia Medical Journal.*

THE VALUATION OF DRUGS.—*The Active Distinguished from the Inert by Physiological Tests.*—Hitherto the practice has been to fix a standard only for such drugs as are amenable to chemical assay. This includes, of course, such drugs as nux vomica, opium and cinchona, regarding which, standards were formally adopted at the revision conducted in 1890, and also ipecac and belladonna, which the British pharmaceutical authorities have since added to the pharmacopœia recognized in the British Isles. The American revisers will no doubt include the latter drugs in the new Pharmacopœia of this country, and it is highly probable that they will likewise admit and fix standards for the Calabar bean, gelsemium, hyoscyamus, podophyllum, colchicum, conium, stramonium and veratrum, all of which lend themselves to chemical analysis.

The question is whether the work of the committee should stop here. Why, it is asked, should no standards be fixed for such drugs as ergot, digitalis, strophanthus, aconite and cannabis indica? They are all drugs which are in universal use, and their quantitative standard is surely of as much consequence both to the physician who prescribes the remedy and to the patient who takes it as that of any other medicine. "It matters little," as one authority observes, "how much crude ergot goes to the fluid pound of the extract if the fluid fails to produce a characteristic physiologic action." What, then, is the objection to standardizing these drugs as well as others? Only this, that the drugs in question are not amenable to chemical assay, or at all events cannot in the present state of chemical knowledge be assayed chemically with a sufficient degree of accuracy to justify the fixing of a standard, measured quantitatively. But is this any reason why no attempt should be made to fix a standard by

other means? Scientific inquirers conducting private investigations are not content to rest there, and neither are the higher class of manufacturing chemists. Acknowledging and making use of the chemical test whenever it can be applied with satisfactory results, they have recourse to physiologic tests, which as regards the question of potency, are for all practical purposes equally reliable. At present, as has been pointed out, a practitioner who writes a prescription, say for digitalis, in a dozen different parts of the same town will find in some instances that he obtains a drug which exhibits a satisfactory physiologic action, and in others no satisfactory action whatever. This is submitting the drug to a physiologic test when it is too late. *If, instead of leaving the patient to be experimented on, similar tests had previously been made with the article on some of the lower animals, the potency of the drug would have been known, and the doctor would be aware of the exact strength as well as the nature of the remedy he was prescribing.* That the present condition of matters in this respect is recognized by the profession as eminently unsatisfactory was shown by the discussion which took place at the recent meeting of the American Medical Association at Columbus, Ohio, and it is hoped that the Revision Committee will deal with the subject in a sufficiently bold manner to provide an adequate remedy, To this end, however, it is necessary that it should be fortified by expressions of opinion both from medical men and the manufacturers of drugs, it being to the interest of none, so far as we can see, except traders in inferior classes of drugs, to oppose the standardization of as many as possible of the drugs that are used in the practice of therapeutics.—*N. Y. Medical News*, Sept. 9, ult.

CAN THE HANDS BE STERILIZED?—The question of rendering the surgeon's hands sterile again and again comes up for discussion. The supreme difficulty which attaches to the achievement of absolute asepsis creates doubt as to the complete efficacy of accepted methods of sterilization. The latest investigators on the subject are Gottstein and Blumberg, who report their experiments in a recent number of the *Deutsche Medicinische Wochenschrift*. These experiments were made with a view of

testing the efficacy of Fürbringer's method, viz., three minutes' scrubbing in hot water and soap, one to two minutes' soaking in six-per-cent alcohol, and finally, scrubbing with a 1:1000 solution of bichloride. The result of such disinfection was glaringly unsatisfactory, so the periods of immersion were lengthened to ten minutes in hot water and soap, three minutes in alcohol seventy-per-cent strength, and two to three minutes in sublimate solution as before. The results were better, only fifty-three per cent of cases showing germs instead of 61.3 per cent as before. The disinfecting procedures were continued until they occupied a longer period than could be given in practical surgery, and still twenty-nine per cent of cases showed germs present. This seems to raise the question, Can the hands ever be made sterile? The germ most frequently present was the staphylococcus albus, one which Bischoff has shown possesses pathogenic properties.

The methods of disinfection pursued by American surgeons do not differ materially from the method of Fübringer. Taking the latest surgical text-book, Park's Surgery by Ambrican Authors, Nancrede therein urges great care in having the water sterile, advises the use of a potash soap or soft soap combined with five per cent of hydronaphthol, this to be followed by immersion in ether or alcohol, and finally, the hands to be immersed in a 1:2000 sublimate solution for five minutes. Instead of sublimate solution Park recommends mustard flour mixed in the hands to thin paste and removed by sterilized water. This, he says, proves a successful germicide. These proceedings, however, do not differ materially from the procedure of Gottstein and Blumberg, and would probably not exemplify better results than seventy-one per cent of germ free hands.

The difficulties in securing absolute asepsis being well nigh insuperable, the question of operating gloves again enters the field of practical surgery. It was the danger of infection from these sources which led to the adoption of gloves by Mikulicz. Knitted gloves were used with marked success, these being much simpler than the rubber gloves of Friedrich. Such a proceeding as the wearing of gloves must not, of course, induce the surgeon to abrldge in any detail the customary antiseptic ritual. This must be as urgent as before so long as permeable gloves are used. While absolute disinfection may be impossible, the num-

ber of pathogenic germs can undoubtedly be materially reduced by rigorous observance of antiseptic precautions.—*Medical Age.*

[One of the latest ideas we have heard of, and it incidentally and traditionally comes from an unknown *Gothamite* source, is as follows: Dip the hands, after having washed them carefully, in *Pure Carbolic Acid*, and then immediately immerse them in alcohol—the latter antidoting the former before any cauterizing effect is felt. I have never tried it, but have been reliably informed that it is safe by one of our Nashville surgeons. If a doubting Thomas, one finger might be tried as an experiment.—ED. S. P.]

ABORTION AND ABORTIONIST .—The very interesting series of articles now appearing in the *New York Medical Journal* on the relation of law to physicians contain some references to the subject of abortion, and the author shows how stringent are the laws against those that would procure abortion, saying that even the advice to a woman to take a certain abortifacient, whether she take it or not, is a misdemeanor. To show how far apart are law and facts, it is only necessary to scan the daily papers and see how difficult it is to convict and sentence an abortionist who knows himself that he is guilty, whom all know is guilty and whom trustworthy witnesses convict almost out of his own mouth.

The laws of this country are so liberal, and the fear of convicting an innocent person are so strong, that the person accused remains innocent until the proof of his guilt is overwhelming and final. The tendency is always towards acquittal, and for this reason it has always been so difficult, and, indeed, it is now a matter of great difficulty, to convict a person accused of abortion. All sorts of excuses are offered; there is an abundance of perjury, which the court feels sure is perjury, but which it cannot prove to be such. Every loophole is given for the accused to escape, and often, indeed, it looks as if laws were made and courts convened to let the guilty escape.

There is some hope, however, that one person, commonly believed to be guilty, will meet his just deserts, and the State's attorney deserves the thanks of the profession for his untiring energy in bringing this case to such a successful termination.

Protestants believe that there is no especial crime in killing the fetus if the mother should be protected, while Roman Catholics look upon it as murder; hence in Catholic countries the number of illegitimate births is much greater than in Protestant countries. The bringing away of the unborn child at any time during its fetal life is usually so dangerous because in most cases it must be done secretly and without those precautions that are usually so carefully carried out at a normal birth. An unclean instrument, the remains of the placenta, a part of the fetus, lack of cleansing douches during the period of recuperation, all make the operation one so often fatal.

It is known that abortion is done by reputable physicians with all proper precautions, and the results have not been fatal. These cases do not occur so often, but every gynecologist especially, and some obstetricians, for various reasons, which seem to them and the family to be good, have relieved the woman of a burden which in their opinions is detrimental to her health and a useless burden to her already large family. In such cases the outcome is usually safe, because precautions are taken, and if death should occur it is put down to some other cause which would not be questioned. It is not intended to uphold these persons and their abettors, but to point out that the principal danger in abortion is the secrecy involved in unmarried women especially.

There are some professional abortionists who are successful in most cases, who are skilled physicians and gynecologists and who have been thoroughly trained and have a good education, with experience in the best hospitals. These men have not been successful in ordinary practice, and, having no conscience, undertake for sums, varying with the wealth of their victims, to procure with entire success, and with little danger, the premature birth of the unborn child and nurse the woman to recovery.

There are some evils that cannot be stamped out and that all persons, even the best, wink at, but none the less the work of the State's attorney of Maryland in bringing to trial a man who has been for years so notorious, and perhaps in convicting him, is deserving of the highest praise from the profession and the public.—*Maryland Medical Journal.*

[We do not know who the man alluded to is—no, not man,

but beastly hound—but to our contemporarie's article we sincerely say Amen! *Amen*! AMEN!—Ed. S. P.]

Glycerinized Vaccine Lymph.—The prevalence of smallpox of late in various portions of this country, though greatly to be deplored, has at least afforded excellent opportunities of testing the merits of glycerinized vaccine. In Great Britain opinions are unanimous as to its superiority over any other kind of lymph, and this view would seem to be shared by those physicians who have used this new mode of preparing vaccine in America. Dr. Albert Barnes, of Philadelphia, has thoroughly investigated the matter by means of statistics by letter and by personal inquiry, and the result has been that the testimony in favor of glycerinized vaccine was convincing. In Baltimore conservative estimate places the number of successful takes as ninety-five per cent. in primary cases. In Minneapolis there was a proportion of ninety-five per cent. of successful takes in primary cases, and seventy-five per cent. in secondary cases. Reports of a like nature come from every portion of the country. Dr. Barnes draws the following conclusions from his investigations:

This investigation proves conclusively that the recommendation of the United States Marine-Hospital service, "that glycerinized vaccine only should be employed," is well substantiated by experience, because:

(1) Properly prepared glycerinized vaccine is pure and free from staphylococci, streptococci, and other pathogenic organisms which are invariably found on vaccine points.

(2) Glycerinized vaccine affords absolute protection against smallpox; vaccine points are uncertain in this regard.

(3) Vaccination with the glycerinized products does not cause excessive inflammation of the vaccinated area. Cellulitis and inflammation of the lymph vessels and glands, amounting at times to abscess formation, is a not infrequent sequence of the use of vaccine points.

(4) Vaccine points are apt to lead to a false sense of security, inasmuch as they induce a local staphylococcic or streptococcic infection which is entirely distinct from true vaccination. Such a result is not protective against smallpox.

(5) A high estimate of successful takes from vaccine points is by these and numerous other reports shown to be not over sixty per cent. in primary cases and a much lower percentage in secondary cases.

(6) Glycerinized vaccine has been officially adopted by the governments and health authorities of the United States, Great Britain, Germany, France, Russia, and Belgium. It should be universally adopted in private practice.—*New York Medical Record.*

CARBOLIC ACID POISONING.—Dr. W. H. Mitchell of Los Angeles, in *The Southern California Practitoner* for October, '99, gives the following suggestions for its treatment: Condition No. 1. A deadly poison is in the stomach, and it is being rapidly absorbed into the blood. How shall we treat this condition? Sulphocarbolates are harmless in the blood. Our first duty then is to give an ounce of magnesium or sodium sulphate. This will render the poison harmless. We should now proceed to wash out the stomach. It is also well to add Epsom salts to the lavage water.

Condition No. 2. Some of the poison which has not been neutralized is circulating in the blood. This causes a great depression in the brain centres and renders the vital organs weak and irregular. How shall we meet this condition? Use the hypodermic syringe freely. Give enough atropine to dilate the pupils and assist respiration. Enough strychnine, ether and brandy to sustain the heart and assist it to pump the vital fluid to the three great medullary centers, which hold the life of your patient in their tender grasp. Also wrap the patient in hot blankets and raise the foot of the bed.

Condition No. 3. This poison in the blood must be eliminated quickly, before it paralyzes the medullary centres. How shall we meet this condition? Some advise diluent drinks, but they are not of much use, as their action is too slow. I believe hypodermoclysis is the only rational way to meet this condition. Carbolic acid is chiefly eliminated by the kidneys, therefore we must depend upon this channel of exit. A pint of the saline solution introduced subcutaneously will immediately stimulate

the renal cells to greater activity and cause an abundant secretion of urine. If resorted to early, I have no doubt, but that hypodermoclysis is a potent agent to assist the elimination of poisons by way of the kidneys.

Thus you see, I have no new or specific remedies; but have simply tried to emphasize the steps, and outline the canons to be followed, when sudden emergencies confront us, and perhaps life or death awaits our bidding and treatment.

SURGICAL HINTS.—The following is taken from the *International Journal of Surgery* for September:

Don't spend half an hour in carefully sterilizing your hands, and then wipe them on any old towel that is lying around. Work with wet hands if you can't obtain a sterile towel.

An enlarged prostrate often projects, as it were, into the bladder, thus increasing the length of the urethral canal. Hence an instrument must often be introduced farther than usual in order to reach the urine.

Look at the foot when a patient complains of enlargement of the femoral lymphatics. A suppurating ingrowing toe-nail or any other septic condition of the toe or foot is probably at fault. If this is properly attended to the glands will soon subside.

In general operative work it is always useful to have two kinds of artery forceps, pointed and blunt-jawed. The pointed artery forceps are most useful for vessels in and near the skin, as they crush less tissue. The blunt-jawed forceps permit more rapid and efficient hemostasis in the deeper tissues.

In the treatment of fractures of the long bones it is practically impossible to bring the broken surfaces end to end in perfect approximation. Our object is simply to accomplish this as nearly as possible, and in the lower limbs to secure such extension as will result in a bone of normal length.

In injuries of the skull requiring operation it is well to remember that the prognosis depends a good deal upon the region involved. Thus in a series of over 800 cases it was found that the mortality was one to sixty when the anterior brain was affected, whereas it was one to thirteen in injuries of the central and posterior regions, and one to four and a half in those situated at the base.—*Medical Age.*

MEDICINES FOR THE ARMY IN THE PHILIPPINES.—The following data are from the *Army and Navy Journal* and relate to a requisition, recently made by the chief medical officer at Manila for medical and surgical supplies: 7,500,000 grains of quinine, 20 tons of epsom salts, 5,000 bottles of paregoric, 3,000 bottles of iodoform dressing, 8,000 bottles of collodium, 5,000 bottles of chloroform, 2,500 tins of ether, 16,000 bottles of bismuth, 7,000 bottles of alcohol, 10,000 quart bottles of whisky, and 12,000 yards of plaster. There were also 600,000 compound cathartic pills, 1,000,000 tablets of strychnine, 1,600,000 tablets of sodium salicylate, 625,000 tablets of salol. Of surgical dressings there were 50,000 yards of plain gauze, 5,000 yards of unbleached muslin, 50,000 sterilized bandages, 4,000 pounds of absorbent cotton, and 96,000 roller bandages.—*Pennsylvania Medical Journal.*

ATROPINE IN DELIRIUM TREMENS.—Touvine (*Archives Medicales Belgiques*) administers atropine to his alcoholic patients in one-sixtieth grain doses hypodermatically. The result is to quiet them, and to put them to sleep in a few minutes. It is believed that the prompt action of the atropine is due to its stimulating effects on certain centers of the brain, thus inducing the quiet and sleep.—*American Practitioner and News.*

CENTIGRADE AND FAHRENHEIT —Dr. W. J. Swift writes: A simple and more easily remembered formula for the conversion of Centigrade degrees into Fahrenheit degrees and *vice versa*, than that given by Dr. Whiton in the *Medical Record* of October 14th, is the following: $\frac{9}{5}$ C. plus 32 = F.; $\frac{5}{9}$ F. minus 32 = C. —*Medical Record.*

APPLICATION AGAINST MOSQUITOS.--According to an exchange, a sure preventive against attacks of mosquitos is found in a solution of alum in water—size of a marble to a basin of water. Exposed portions of the body are washed with the solution, after which the surfaces so treated are said to be proof against the insects.—K. *in Pennsylvania Med. Journal.*

[A mighty easy way of warding off or avoiding *malaria*, heh! —ED. S. P.]

EPILEPSY AND ITS TREATMENT.—In a contribution to the study of epilepsy and its treatment Wislocki (*Gazeta Lekarska*, No. 19, 1899) advocates the milk diet. Complete disappearance of attacks was noted in some instances and decrease in number in others so treated. It has the advantage over the bromides of not disagreeing, so that its employment may be continued indefinitely. When not well borne it can be alternated with courses of the bromides. The improvement under the exclusive milk diet leads the observer to believe that attacks are due to irregularities in nutritive exchanges in individuals whose cerebral cortex is in a state of superexcitability.—*Medical Record.*

Editorial.

THE MEDICAL SCHOOLS OF NASHVILLE—SESSION OF 1899-1900.

The closing of the century finds the three Medical Universities of Nashville in a more prosperous condi ion, and with larger classes at the beginning of the current month than ever before in their histories—with the exception of the Medical Department of the University of Nashville, which in my own personal recollection in the session of 1859-60, owing to the hegira of Southern medical students due to the impending conflict of the civil war had its class then run up to over 400 students. Yet, this year, its class is larger than at any time since the closing of that great internecine struggle.

They have all settled well down to work, the Professors all enthused, encouraged and stimulated, not only by the number in attendance, but more by the character and intellectual stamina of their student clientele. Quite a number who graduate in Nashville this session will have the

authority to prefix the letters A.B., A.M., Ph.D., or other literary desigignation in front of the magic "letters of marque" M.D., that will be granted them by the time "the flowers bloom in the spring." And this large attendance here is in the face of the fact that in the last few years medical schools have largely increased in number both North and South, —many fields, a number of States but a few years ago were barren of these institutions of scientific learning and research that are now occupied.

Well, Nashville has a right to a large medical student population during the months that custom and reason have dictated—students not only from the South, but North, East and West as well. Her equable and genial temperature during the winer solstice beginning with the autumnal and ending with the vernal equinox—neither too cold nor too warm—warm enough to be comfortable, and especially attractive to students from the colder North, for they are here from every section of our grand Republic, and cold enough to afford satisfactory results in laying the groundwork of medical lore by means of the fundamental anatomical study and practical teaching, but not so cold as to occasion discomfort to those from the Gulf Coast and other almost tropical localities; the hospitality of its citizens; the boarding houses not only comfortable and homelike, but reasonable in their rates; its railroad connections and the courtesies extended the students by them, especially to such as desire to take advantage of the brief Christmas holidays for a short sojourn at home or with friends and relations in adjacent cities, towns and rural sections; its City Hospital with its clinics, in which the teaching is done by the Professors of the various colleges in rotation, thus giving each student the anvantage of having not only the practical views of the Professors of the school in which he matriculates, but those of others as well; and the Free Dispensaries established in connection with each school furnishing a large fund of clinical material. We might go on indefinitely rehearsing the many advantages of our medical schools, but their alumni, throughout the broad land, by both word and deed, are sounding the praises of the Capital City of the Volunteer State as a medical centre and a place for obtaining a first class medical education.

It is a matter of common remark that the colleges are making too many doctors—that the field is too crowded, that the profession is overcrowded, and that there are already too many doctors. Well, we make the assertion, and defy its refutation, that there are no more doctors now, in proportion to population, no, not as many, as when grand and good old Benjamin Rush signed the Declaration of Independence. According to *Polk's Medical and Surgical Register of the Physicians* of the United States, published last year, which we regard as most excellent authority, there are about 125,000 physicians, Regular, Homeopathic, Eclectic, etc., in the United States. With our 75,000,000 people that gives one doctor, good, bad or indifferent—and many of those enrolled in this Register and Directory are not engaged in practice—to each 600 people. That is not too many when we look at the fact that many of them are ia rural localities with sparse population, with long distances intervening between

their patients. The U. S. Army furnishes at least two or sometimes three medical men to each regiment of between 1,000 and 1,200 men, besides quite a number of others, such as Assistant Surgeons General, Medical Directors and Hospital Surgeons. And their patients are all picked men—selected in the regular army with far more care than many of our best life insurance companies' risks. Men between the ages of 18 and 60. Granted that at times they have a flood of surgical work, during an engagement—but does not the practitioner in civil life have his epidemics to contend with, be they cholera, yellow fever, smallpox, or even measles and mumps—his diarrheas and dysenteries in summer, his fevers that are in wave-like demonstrations, his colds, pneumonias, etc., and his clientele embraces women and children, together with the aged, who are all far more prone to disease than the soldier, even considering his chances in battle. So with the navy—all picked and carefully selected men in the prime of life, with one and sometimes two doctors to less than 600 men. Take it from a financial standpoint. With one doctor to each 600 population, for 25 cents a month, or only $3 per annum per capita, the average income of our physicians would be $1,800 per annum; and for only 50 cents per month, double that, or $3,600. Even the latter is but a small sum to pay per capita, and while some do not pay anything, the many that pay far more even the matter well up. Granted that many physicians do not make that much, yet there are others whose income reaches far beyond it, and I believe that the average income of the practicing physician of to-day would more than reach the $1,800 mark at least. In what business or what occupation is such an average to be found? Then again, the physician in a sparsely settled locality, whose income falls below this average—if he is attentive to his practice, keeps himself abreast with the advances in his profession by Journal reading, a good and timely supply of new books, and an occasional sojourn at a polyclinic or post-graduate school, which he can easily do if energetic, economical and earnest, and "keeps his nose clean" and his fingers out of other people's business, and attends strictly to his own, he will live better, be as much respected and esteemed as any man in his section, even though this man be a worthy disciple and teacher of Christ, a lawyer, or a member of the legislature. No, there are not too many doctors—*there are not enough good ones.* There is a wide field and an ample harvest in medicine—only see that the cultivation is thorough and along correct lines.

Look at the immense crop of wheat each summer—the vast yield of corn to be gathered each autumn and early winter—is there or has there ever been too much? No, the crop is harvested but once a year; so with the doctors—the crop ripens each spring, and numbers are sent out from the various schools, but all succeed who deserve success by application to business after proper business methods, with a proper amount of time devoted to study, to proper and rational recreation and rest. Well, as there are not too many doctors yet in the land, we wish all the medical schools, and our own here at Nashville, the most unbounded success now

and hereafter. And now a few words specially as to our Nashville schools and I conclude.

The Medical Department of the University of Nashville, now in its forty-ninth annual session, is giving a course of medical instruction never before equalled in its history, and not supassed by any school in the South. In the department of Physiology many improvements have been made. Professor Jacobs spent the entire summer in special experimental work, and this department will soon be housed in a separate building, devoted entirely to laboratory work. The handsome building, erected only a few years ago, we thought well nigh complete, but this addition will add greatly to its already many advantages. The course in Organic Chemistry has been enlarged and transferred to the second year, leaving room for additional instruction in the inorganic division in the first year. In Surgery, the course is increased by the lectures of the newly elected Associate Professor, Dr. C. C. Warden, supplementing those of Professor Brower. Best of all is the enthusiasm which faculty and students bring to their work. A finer body of young men could not be brought together than are in attendance at this oldest of Nashville's medical schools. With the exception of the venerable Professor Thomas L. Maddin, M.D., so well and widely known throughout the entire land, this faculty is composed of comparatively young men—in the prime of life, full of earnestness and enthusiasm, yet well skilled and of ample experience. The young gentlemen who have entrusted themselves to their care during their noviciate will never have reason to regret it, and the ides of March, I am confident will find each and every one "worthy and well qualified" for his life's duties.

The Medical Departmemt of the University of Tennessee whose building was destroyed by fire about one year ago, have a splendid new building just completed and thoroughly equipped, twice the size of the former, with large additional facilities for laboratory and clinical work—a description of the building was given in our August number, and it is indeed quite a handsome addition to the grand thoroughfare of Broad street, and only three blocks from our magnificent new Union Depot, which is rapidly nearing completion. The class here is larger than ever before at this time of the year, and its *tout ensemble* in a literary point of view is far in advance of any that have preceded it. The faculty and students pleased and proud of their new building and its many advantages, comforts and betterments, are working with vim, earnestness and vigor, and on commencement day will present to the tender mercies of the world at large a magnificent corps of young physicians, well equipped for any duty that may devolve upon them. Clinical teaching for the advanced, and special laboratory work for the junior classes is and has ever been an important feature in this school. Its facilities are now so greatly enhanced in every respect, that notwithstanding the remarkable success of this school and its alumni in the past, far greater may be most confidently anticipated and assured hereafter. Its Dean and every member of its faculty are tireless and most earnest workers—so enthused are they with

their work, and so embued with the mottoes of "*Labor est voluptas*" and "*Laborum dulce lenimen*" that they cannot but so enthuse their students, each and every one.

The Medical Department of Vanderbilt University shows this year a remarkable increase in the attendance on the four classes. Students have come from Maine to Mexico, from the Atlantic to the Pacific, from the lakes to the gulf, attracted by the well earned reputation of this school of medicine. The graduating class will number one hundred and ten and the class of 1901 is only a little behind, as to number in attendance. The first and second year classes of the four year course are larger than could have been expected. The strong teaching force is so well organized that the institution goes on like "clock-work."

The untimely loss of the lamented Professor Ross Dunn occasioned a vacancy in the chair of Therapeutics and Materia Medica, which has been filled by the selection of Dr. W. H. Witt, formerly Demonstrator of Anatomy and Lecturer on Regional Anatomy, one of the younger members of the profession in Nashville, but yet one of the most talented and brilliant of the lot, who will see the day ere long when he will take rank with the ablest of the many able physicians who have preceded him in this city and given it honor and renown. The chair of Obstetrics, which was filled last session by Professor Richard Douglas, as well as that of Gynecology, has been assigned to Dr. John R. Buist, formerly Clinical Professor of Nervous Diseases, a gentleman whom I knew as an able practitioner "befo' and endurin de war." He is ripe in experience, rare in culture and attainments, and this excellent selection will add lustre to this faculty and enable the bright and brainy Douglas to devote his entire attention to the specialty of Gynecology and Abdominal Surgery in which he has achieved such brilliant results.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The twenty-fifth annual meeting of the Association, at Chicago, was in every respect the most successful meeting in the history of the organization. Despite the many distractions of a large city, the meetings of the sections were universally well attended, and a larger percentage of those down for papers were present to read them than ever before. The discussions were full and to the point, and on this account the volume of transactions that will be issued at once will be very valuable. The following were appointed a Committee on Publication: Drs. Henry E. Tuley, Dudley S. Reynolds, and Lewis S. McMurtry. Those on the programme who have not handed in their papers must do so before November 1st, after which time no paper will be received for publication.

The Executive Committee has ordered that no volume be sent a member who is in arrears for dues.

The following officers were elected for the coming year: President, Dr. Harold N. Moyer, Chicago, Ill.; First Vice-President, Dr. A. H.

Cordier, Kansas City, Mo.; Second Vice-President, Dr. S. P. Collings, Hot Springs Ark.; Secretary, Dr. Henry E. Tuley, Louisville, Ky.; Treasurer, Dr. Dudley S. Reynolds, Louisville, Ky.; Chairman of Committee of Arrangements, Dr. M. H. Fletcher, Asheville, N. C.

The sixth annual meeting will be held in Asheville, N. C., October 9th, 10th, and 11th, 1900.

THE TRI-STATE MEDICAL ASSOCIATION.

The sixteenth annual meeting of the Tri State Medical Association, of Mississippi, Arkansas and Tennessee, will take place in Memphis, November 14th, 15th and 16th, 1899. The rapidly growing popularity of this aggressive organization of representative physicians from the territory contiguous and tributary to Memphis is such that in point of attendance and enthusiasm it has no superior in the South. At its last meeting nearly three hundred physicians were present during the sessions of the association, and the list of papers read was very complete, the papers being of a quality far above the ordinary.

Physicians from all portions of the State comprising this association are urged to take a brief vacation from their arduous duties and come to this meeting.

All railroads entering the city of Memphis will make the customary one and one-third fare rate on the certificate plan.

Titles of papers should be sent to the Secretary, Dr. Richmond McKinney, Porter Building, Memphis, Tenn.

NEAT BUT NOT GAUDY.—*More Useful than Ornamental.*—Our enterprising and progressive friends, the Antikamnia Chemical Company, have recently been sending out to the profession a very neat little Morocco folder, which will be very convenient to carry smoothly and neatly the $10, $20, $50 and $100 bills which we hope our professional friends will be receiving from time to time in order to prepare for the annual visit of good old Santa Claus. They have, however, before sending out the "folder," *loaded* it with samples of their new combinations of *Antikamnia Laxative Tablets* and *Antikamnia and Quinine Laxative Tablets*. As for Antikamnia it is so well known here, in Europe, and even in the Antipodes, it needs no commendation at our hands. As to these two new synergetic compounds however, a few words we hope will not be amiss.

The Antikamnia Laxative Tablets are composed of antikamnia 4⅔ grs., cascarin ⅛ gr., aloin, ext. belladonna and podophylin 1-32 gr. each, making an effective laxative, analgesic and antipyretic.

In all diseases and affections where pain and fever are present, a laxative is almost invariably indicated. This is especially true in the beginning of the various fevers; in acute throat, bronchial, and lung affections; and especially in the acute illnesses of early life.

Attention is particularly called to the therapeutics of this tablet. One of its ingredients acts especially by increasing intestinal secretion, another by increasing the flow of bile, another by stimulating peristaltic action, and still another by its especial power to unload the colon.

The Antikamnia and Quinine Laxative Tablet has the following combination: Antikamnia 3 grs., quinine bi-sulph. 1¼ grs., cascarin ⅙ gr., and aloin, belladonna and podophyllin 1-32 gr. each, and is a tonic, laxative, analgesic and antipyretic, which will reduce fever, allay pain, and at the same time have a gentle laxative and excellent tonic effect.

Among the many diseases and affections which call for such a combination, we might mention la grippe, influenza, coryza, coughs and colds, chills and fever, and malaria with its general discomfort and great debility.

We would especially call attention to the wide use of this tablet in chronic or semi-chronic diseases. Its power to relieve pain, reduce fever, tone up the system, and restore natural activity to the bowels will, we feel sure, make this tablet unusually valuable.

Development of the Liver and Disease.—Often we find a close relationship between the liver and certain diseases, so close in fact that there seems to be a dependence upon the liver to maintain perfect health. Nearly all febrile conditions are associated with hepatic disturbances, especially constipation or a jaundiced condition. This is seen in different forms of malaria, when the bowels are constipated, the digestion poor, the lymphatics engorged, skin yellowish, even true jaundice. In malarial troubles the administration of the sulphate of quinine often does not stop the ravages, simply because the alimentary canal is not in the condition to facilitate the absorption of quinine. The stomach and intestinal tract and liver are intimately connected with the nervous and circulatory systems, and one being deranged affects the functions of the other. If there is a deficit of hydrochloric acid in the stomach, often found in malaria, the quinine, especially if administered in capsules, passes through the bowel with the feces without being dissolved. In this condition, if the function of the liver can be stimulated, there is an increase of hydrochloric acid in the stomach and the quinine is absorbed.

Again in portal congestion we have a similar condition, and the function of the liver is off, and biliousness, so-called, is the consequence. Bile is nature's purge, in that it digests or helps digest food which has not been digested in the stomach. It is also a decided laxative, the salts of the bile causing more fluid secretion to be discharged into the alimentary canal, especially the small intestine, and it certainly increases peristalsis.

Often when the physician wants to relieve a deranged liver, especially if functional, a brisk purge is administered and the system, on account of the quick emptying of the alimentary canal, often loses considerable bile, which in reality should be reabsorbed. The drug admin

istered should be a cholagogue and a laxative, not a purge. Chionia, prepared by the Peacock Chemical Company from the Chionanthus Virginica, with the disagreeable properties of the crude drug eliminated, in teaspoonful doses three or four times a day, certainly stimulates the function of the liver, and causes a discharge of bile into the canal, but not in such quantities as to cause purging, but it acts as a laxative, which soon re-establishes an equilibrium between the organs of the digestive apparatus. Those who lead a sedentary life, and pay very little attention to the calls of nature, soon begin to suffer with constipation and biliousness in a mild form. The condition is very promptly relieved by the use of Chionia.—*J. S. Moreman, M.D., of Louisville, Ky.*

An Indispensable Part of Drug Valuation.—In a very excellent article on the above subject by Dr. E. M. Houghton, of the Detroit College of Medicine, published in the *Bulletin of Pharmacy*, October, 1899, in which he brings strong and logical argument in behalf of physiological assay necessary to pharmaceutical research; and shows that the chemical test is futile, and that the animal tests afford the only safeguard, he summarizes the following conclusions:

"I believe that advances may be made in pharmacy by the application of physiological methods, since such methods when employed in connection with chemical manipulations enable us to standardize potent drugs not amenable to chemical assay, improve processes of pharmaceutical manufacture, aid us in the isolation of active constituents, help us to a clearer knowledge of the action of drugs long employed in practice, and promote the advancement of medical science by furnishing exact knowledge of the action of new substances before they are em ployed clinically."

Sapodermin.—For corrosive sublimate poisoning, albumen is well-known to be an efficient antidote. An albuminate of mercury is formed, which, being insoluble, is not at all toxic, is in fact entirely inert. Recently this feature has been embodied so as to be of the utmost service to the surgeon, to the dermatologist, and to the general practitioner as well. The albuminate of mercury as found in the germicidal soap known as Sapodermin, is not only not toxic, it is not irritant, it does not corrode metals. In addition, it is absolutely soluble, it has marked penetrating power, and in germicidal action is equal to the sublimate.

Southern Surgical and Gynecological Association.—The next meeting of this most progressive and active association will be held in New Orleans, December 5th, 6th and 7th. Lookout for it, and attend if possible. Jack Frost has put a quietus on Yellow Jack, quarantines are

all out of the way, and the early days of December is a most excellent time to visit the famed Crescent City. And the Doctors there! Princes of good fellows, reeking with scientific lore, replete with true Southern courtesy, together with the hospitality of the citizens generally have been so well known and familiar to the world at large for more than a century, that urging a visit to that great metropolis at this time of the year is superfluous. By all means Doctor, go if you can.

As to Ecthol.—I had rather a queer experience with your sample of Ecthol. I took it twenty miles North and gave it to Nicholas Diaz. He has had Scrofula for four years and has paid out in that time over one thousand dollars. He took a teaspoonful every two hours for four days, after that a teaspoonful every four hours until he had used two bottles. He walked in here to-day, cured. All signs of swelling and those awful Scrofula sores and blotches on his face are gone. Of course his soft palate was destroyed by the disease long ago, and he thought I could make him a new one, I replied only God can do that. He paid me enough so I can buy more of your remedies, and I shall keep a supply on hand. I buy from Dr. Barry of Durango, Mex., who orders for me from San Antonia, Tex. Chas. A. Bailey, M.D.

Canatlan, Durango, Mex., September 29th, '99.

The Ninth Annual Meeting of the American Electro-Therapeutic Association was held in Washington, D. C., at Willard's Hotel, on the 19th, 20th and 21st of September, 1899. The convention was very successful in point of attendance and interest, and a number of papers of scientific value and importance to the medical profession were read and discussed. The program included 36 papers and the reports of seven standing committees on scientific questions relating to the medical application of the electrical current with the best electrical apparatus extant. The proceedings of the convention will be found in their Annual Transactions to be published at an early date.

The officers elected for the tenth year are: President, Walter W. White, M.D., Boston, Mass.; First Vice-President, D. Percy Hickling, M.D., Washington, D.C.; Second Vice-President, Charles O. Files, M.D., Portland, Me.; Treasurer, Richard J. Nunn, M.D., Savannah, Ga.; Secretary, George E. Bill, M.D., Harrisburg, Pa.

The next annual meeting will be held in New York city on Sept. 25, 26 and 27, 1900.

Proprietary Medicines.—Dr. William Rittenhouse, in the *Medical Standard*, states: "The fundamental idea underlying proprietaries is that some prescriptions can be better compounded on a large scale by the

manufacturing pharmacist than on a small scale by the retail druggists."

When physicians hesitate to prescribe Tongaline because it is a proprietary article they overlook the fact that this is a source of protection both to them and to their patients.

For instance, all the salicylic acid used in Tongaline is made in the laboratory of the proprietors from the purest natural oil of wintergreen, and the most eminent medical authorities declare this salicylic acid is the only one which should be taken into the system.

Scarcely any retail druggist has the wintergreen salicylic acid in stock, and those who do have it purchase it in such small quantities that its cost when dispensed by them renders its use almost prohibitive; hence the synthetic salicylic acid is furnished on prescriptions, and this acid is most unreliable and its use is apt to be attended with very injurious results.

It is a simple business proposition that a proprietor who has spent hundreds of thousands of dollars in advertising his preparation should exercise the greatest care in maintaining its character by the purchase, regardless of cost, of the very best ingredients which the markets of the whole world will afford, as also that he will use the most improved and expensive machinery and appliances in compounding his product.

When a physician prescribes Tongaline in original packages, or takes care that the genuine article is dispensed, he can always rely upon "certain results from certain doses in a certain time."

THE CINCINNATI LANCET CLINIC.—This most excellent medical journal which of our exchanges ranks with the best, published weekly by Dr. John C. Culbertson, a royal prince indeed, in the medical editorial guild, if not of the house of David, chaste in his diction, tasteful in style and correct in his statements, a free lance of the highest order of knighthood in professional ranks, frank and fearless, assisted by a most excellent corps of contributors, keeping in full touch with its progressive local and other regular medical organizations, will be sent for *forty weeks* to any doctor for one dollar. So if you want to have a fair trial of a first-class medical weekly send your address and one dollar to Dr. J. C. Culbertson, 37 West Seventh street, Cincinnati, Ohio. You will never regret it. The edge of the *Lancet* is keen, the details of its Clinic are most worthy. A most excellent record of events in the field once occupied by the illustrious Daniel Drake, and his many able successors.

SANDERS & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics at the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo. Dallas, Tex., and New York, sole agents.

MIDDLE TENNESSEE MEDICAL ASSOCIATION.—The following is a partial list of papers promised for the meeting at Winchester, November 16 and 17:

Acute Pneumonia in Childhood, Dr. E. H. Jones, Murfreesboro.

Antitoxin Treatment of Diptheria, Dr. J. B. Murfree, Sr., Murfreesboro.

Septic Wounds, Dr. C. N. Cowden, Petersburg.

Belladonna in the Treatment of Infantile Hydrocele, Dr. L. H. Gilliam, Kelso.

A Case of Inoperable Vaginal Cancer Treated with Topical Applications of Methyl Blue, Dr. H. R. Coston, Fayetteville.

Hygiene in Small Cities, Dr. M. L. Hughes, Clarkesville.

The Use and Abuse of Ergot in Parturition, Dr. S. T. Hardison, Lewisburg.

Auto-intoxication, Dr. L. E. Ragsdale, Columbia.

Hydro-therapy, Dr. L. L. Sheddan, Williamsport.

Papers are also promised by Drs. W. K. Sheddan, Columbia; C. A Abernathy, Pulaski; Reginald Stonestreet, Paragon Mills; D. B. Cliffe, Jr., Franklin; J. W. Grisard, Winchester; S. D. Thach, Decherd, and K. S. Howlett, Bigbyville.

A good meeting is confidently expected, and Winchester is a magnificent place to go to. The Franklin County people will give you a right royal welcome, and as hog-killing time is at hand—backbone and spare-ribs, with country sausage, to say nothing of possum and sweet 'taters, may be among the good things on hand.

CHATTANOOGA MEDICAL COLLEGE.—From a very acceptable and agreeable personal communication from Prof. E. A.Cobleigh, M.D , Dean of the Chattanooga Medical College, of Oct. 25, ult., we extract the following paragraph:

"I am glad to state to you that we open with the largest class in our collegiate history, foreshadowing a most prosperous year."

Well, with the tocsin of war ringing so loudly, with the possibility of more astounding reverberations in the near future, it is well to be well supplied with doctors. and no more historic ground on which to make them exists than under the shadow of grand old Lookout; and the Faculty of the Chattanooga Medical College are able and competent teachers.

TREATMENT OF BEDSORES.—Studies in recent years show that proteids, and especially peptones, in solution stimulate granulation. In other words, it is local feeding of badly nourished areas. We have no special preference for these preparations. Bovinine gives excellent results. In Blockley Hospital, where bedsores were once so numerous, now under this treatment we have scarcely one.—*Dunglison's College and Clinical Record.*

Reviews and Book Notices.

HANDY BOOK OF MEDICAL PROGRESS: A Lexicon of the Recent Advances in Medical Science. By CHARLES WARRENNE ALLEN, M.D., and JACOB SOBEL, M.D. One volume, post 8vo. Extra buckram, $1.50 net. WM. WOOD & Co., New York, 1899.

This little book will be found of great assistance to medical men, whether students, practitioners or teachers, and furnishes a means of conveniently and rapidly acquiring information relative to the newer advances in all lines. The alphabetical arrangement makes it specially handy and convenient. It includes the more recent and novel names of diseases, tests, methods, drugs, therapeutical and surgical suggestions, etc.

KIRKE'S HAND-BOOK OF PHYSIOLOGY. Fifteenth American Edition. Revised by WARREN COLEMAN, M.D., Professor of Physiology in the Woman' Medical College, New York, etc., and CHARLES L. DANA, A.M., M.D., Professor of Nervous and Mental Diseases in the New York Post-Graduate Medical School, etc. One volume, 856 pages-8vo, profusely illustrated by 516 wood engravings in black and colors, and by chromo-lithographic plates. Muslin, $3 net; leather, $3.75 net. WM. WOOD & Co., New York, 1899.

"Kirke's" is so well known that no apology or description is necessary. We need only say that in the present revision such changes have been made as seemed necessary to bring the subject matter in accord with the generally accepted physiological views. The characteristic arrangement of the book, which has commended itself to all American teachers of physiology, has been left, in the main, unchanged. The most important changes in the text have been made in the description of the cell, the coagulation of the blood, the ductless glands, and the muscle-nerve

physiology. Many minor changes were also made throughout the book generally. The chapters on the nervous system, recently revised by Dr. Dana, have required no change.

Unquestionably it is one of the best works on physiology for the use of students—compact, comprehensive and cheap; and while full enough to give the student a thorough and practical knowledge of this important branch, it is not burdensome or too voluminous. We class it, unquestionably, most excellent.

OVER 1,000 PRESCRIPTIONS, or Favorite Formulæ of Various Teachers, Authors and Practising Physicians. The whole being carefully indexed, and including most of the newer remedies. Cloth, 300 pages, postpaid, $1. THE ILLUSTRATED MEDICAL JOURNAL CO., Detroit, Mich., 1899.

This is the second edition of this handy manual, and is just from the press; it has nearly 100 pages of new matter added. We notice that many of the newer remedies are among the prescriptions, thus bringing the treatment of many of the diseases down to date. Both old and new writers of both home and foreign countries are represented among its formulæ.

Blank pages are frequently introduced, so that a handy place is furnished for recording any new prescription that one might wish to preserve.

THE NEWER REMEDIES. By VIRGIL COBLENTZ, A.M., Phar.M., Ph.D., F.C.S., etc., Professor of Chemistry and Physics, New York College of Pharmacy. Third Edition, Revised and very much Enlarged. 8vo, cloth, pp. 147: P. BLAKISTON'S SON & CO., Philadelphia, 1899.

This little reference manual for physicians, pharmacists and students contains quite a full list of all modern synthetic remedies, including such proprietary combinations containing one or more of these synthetics. It also has a chapter on animal remedial preparations and iron albumin compounds. It is arrangsd alphabetically.

SURGICAL NURSING. A Compilation of the Lectures on Abdominal Surgery, Gynecology and General Surgical Conditions and Procedures, Delivered to the Classes in the Training School for Nurses Connected with the Woman's Hospitsl of Philadelphia, by ANNA M. FULLERTON, M.D., Clinical Professor of Gynecology in the Woman's Medical College of Pennsylvania; Obstetrician, Gynecologist and Surgeon

to the Woman's Hospital of Philadelphia. Third Edition, Revised and Enlarged, with 69 illustrations, pp. 294, price $1. P. BLAKISTON'S SON & Co., Philadelphia, 1899.

An excellent little work for nurses, students of medicine, and even young practitioners, who will find in it valuable facts and suggestions. The principles of aseptic wound surgery, and disinfection, sterilization, preparation of ligature and suture materials, and dressings, are fully considered, as is also the management of surgical complications.

THE AMERICAN POCKET DICTIONARY. Edited by W. A. NEWMAN DORLAND, A.M., M.D., Assistant Obstetrician to the University of Pennsylvania, Fellow of the American Academy of Medicine, etc. Second Edition, Revised. Price $1.25. W. B. SAUNDERS, 925 Walnut street, Philadelphia, 1899.

This excellent little work contains over 26,000 terms used in medicine and the kindred sciences, and represents, so far as is possible, the present state of medical lexicography; and while handy enough for the pocket, will supply the wants of medical students and practicing physicians. Quite a considerable amount of matter is inserted in tabular form, such as muscles, nerves, arteries, dose tables, etc., there being 60 of these extensive and valuable tables. This second edition is thoroughly revised, and the few typographical errors of its predecessor are eliminated.

A COMPEND OF GYNECOLOGY, (Quiz Compend No. 7), by WM. H. WELLS M.D., Adjunct Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic; instructor of Clinical Obstetrics in Jefferson Medical College, etc., 2nd edition, 12mo. pp. 279, with illustrations, price 80 cents. P. Blakiston's Son & Co., Walnut St., Philadelphia, 1899.

As with all the other well known compends issued by Messrs. Blakiston's Son & Co., the first edition of Dr. Wells little work, was well received. Quite a number of changes have been made in this new edition, particularly in the field of operative gynecology, rendered necessary by the wonderfully rapid progress in this branch of surgery. So far as possible the few errors that unavoidably appeared in the first edition have been carefully eliminated, and several new illustrations, and the latest methods of diagnosis and treatment have been added.

[illegible] Diseases of the Central Nervous System. By [illegible], A.M., M.D., Professor of Physiology [illegible] the Nervous System in the Albany Medical [illegible] Illustrated [illegible] With 48 full-[illegible] many of which are printed in [illegible] Price [illegible] P. Blakiston's Son & Co., 1012 Walnut [illegible]

[illegible] American or English writer to [illegible] and thorough treatise on this [illegible] Various [illegible] been made of one or two [illegible] who have been studying this [illegible] has had to make a review of end-[illegible] foreign literature.

Diseases of the central nervous system are becoming more and more frequent in general practice and constant study and reference must be made to anatomy. While writers upon diseases of other parts may safely infer that their readers have been sufficiently instructed in the relative anatomy, authors of books on nervous [illegible] have to contend with the fact that the finer details of their subject are generally considered in a cursory way wholly insufficient for the necessary information demanded by their readers.

The importance of the diseases of the brain and spinal cord are apparent to every one who has been engaged for any length of time in the study and practice of medicine, and no work yet issued will give more satisfactory results in its study than this in the consideration of such grave conditions. It is clear, lucid and graphical in its descriptions and delineations, and to those who are giving any attention to diseases of the central nervous system, we know it will be most highly appreciated.

Dr. Gordinier has endeavored therefore to make a book that will be of use to the general practitioner, and the publishers have done all in their power to thoroughly illustrate it and to print it in a way that will harmonize with its scientific value.

NOTE.—Owing to the illness of the editor during the latter part of October, the November No. has been much delayed, and quite a number of Book Notices and Reviews have been necessarily left over for a later issue.

THE NERVOUS SYSTEM AND ITS CONSTITUENT NEURONS, designed for the use of Practitioners of Medicine and of Students of Medicine and Psychology. By LEWELLYS F. BARKER, M.B., Toronto; Associate Professor of Anatomy in the Johns Hopkins University, and Assistant Resident Pathologist to the Johns Hopkins Hospital. 8vo. cloth, pp. 1122, with two colored plates and 676 illustrations in the text. Price, $5.00. D. APPLETON & Co., Publishers, New York, 1899.

Great advances indeed have of late years been made in the study and investigation of that *terra icognita* the nervous sytem. Much that has been given in the past as tradition, supposition or theory and speculation have given place to observed and recorded facts. There is much yet to be gained by careful study and observation along such important lines, and it is to just such works as this we must turn to get reliable data and information by which to reach a thorongh and complete understanding of what has been for all the ages more or less doubt, mysticism and more or less absolute ignorance. From the care bestowed by this thoughtful student and earnest investigator we do not hesitate in making the prediction that his most valuable addition to the literature of so important a subject will be most cordially received, and reflect that credit upon him which he so justly deserves.

In the first part of the volume the newer conceptions of the histology of the central and peripheral nervous organs are reviewed. In the succeeding chapters the attempt has been made to apply the *neurone* conception—that is the cell doctrine—as consistently as possible, in the explanation and description of the complex architectonics of the nervous system. The term *neurone* is used throughout in the widest sense to mean a *cell belonging to the nervous system with all its parts*, not in the more restricted sense in which many authors employ it and to which objection has in many quarters quite properly been taken.

The introductory chapters appeared in the *New York Medical Journal*, beginning with 1897, but as the field opened out before Dr. Barker, many new works on the pathology, etc., of the nervous system succeeding each other with marked rapidity, a medical journal ever so excellent as our most worthy contemporary was deemed hardly capable and sufficient for so important and magnitudinous an undertaking—hence this valuable work was determined on, the introductory chapters having all been

[illegible] The greater [illegible] dealing with the groups of neurones [illegible] known cells in the nervous [illegible]—motor, sensory, and associative—appear [illegible]

[illegible] well known and [illegible] especially the two columns [illegible] the important sub-[illegible]

[illegible] Anatomy of [illegible] Public Health. [illegible] Lamb., etc., [illegible] pp. 342, hand-[illegible] Putnam's Sons, [illegible] 1899.

[illegible] work will prove of [illegible] practitioner [illegible] it will [illegible] interest in the [illegible] a complete [illegible] library, [illegible] form [illegible] a [illegible] knowledge of [illegible] science is a [illegible] It [illegible] a voyage."

[illegible]

THE SOUTHERN PRACTITIONER.
AN INDEPENDENT MONTHLY JOURNAL,
DEVOTED TO MEDICINE AND SURGERY.
SUBSCRIPTION PRICE, ONE DOLLAR PER YEAR.
DEERING J. ROBERTS, M.D., - - *Editor and Proprietor.*

Vol. XXI. NASHVILLE, DECEMBER, 1899. No. 12.

Original Communications.

THE BUBONIC PLAGUE.

BY THE EDITOR.

"A plague upon the people fell"—Tennyson.

The recent arrival of two cases of so dread and dire a disease at the great port of New York, arriving on a vessel just from South America is the justification for this article, which is in the main a compilation from the most recent authorities that I deem most authoritative and reliable, and it is given to the readers of this journal, not as the views of an observer, but merely as an editorial abstract, or summary. Its prevalence since 1896–7, in the distant East, the deaths of Dr. Müller and two of his attendants last year in Vienna while making pathological examinations and investigations, its possibility of gaining access to this country by reason of the greatly increased facilities for intercommunication, by land and by sea with all parts of the habi-

able globe, the occupation by American soldiers, sailors and civilians of Havana, the Samoan group, and more especially the Philippine Islands, has led me to presume that such an article would be acceptable to many of my readers who have neither time nor opportunity to turn to more complete and voluminous articles of recent date bearing on the subject. I may state, however, that the two cases above mentioned were immediately after their arrival taken in charge by the vigilant Health Officers at New York, and they with the vessel, crew, and contents will be most rigidly looked after until all danger of a spread from this focus is past.

The disease is defined in Webster's International Unabridged Dictionary as "An acute, malignant, contagious fever, that often prevails in Egypt, Syria, and Turkey, and has at times visited the large cities of Europe with frightful mortality, hence, any pestilence, as the great London plague."

John S. Billings, A.M., M.D., in the National Medical Dictionary gives the following definition: Latin, pestis; French and Italian, peste; German, pest. An acute, infectious disease which has at various times appeared in Europe and Asia in epidemics attended with great mortality. It is characterized by severe fever, prostration, and the appearance of malignant buboes.

The definition found in the excellent article by S. Kitasato and A. Nakagawa of Tokio, Japan, in Wood's Twentieth Century Practice, vol. xv, is "An acute infectious disease, characterized etiologically by the presence of a specific microbe, and anatomically by certain pathological changes in the lymphatic nodes." They give as its synonyms—"Pestis, Pestis bubonica, Bubonic Plague, Black Death."

In Dryden and Lee's Œdipus we find the following:

> "At last the malady grew more domestic:
> And the faithful Dog
> Lick'd at his Master's feet; and next his Master;
> * * * * * * * * Heard you that Groan?
> A troop of Ghosts took flight together there!
> Now Death's grown riotous, and will play no more
> For single Stakes, but Families and Tribes.
> With dead and dying men our streets are cover'd,
> And Earth exposes bodies on the pavements,
> More than she hides in Graves.

Between the Bride and Bridegroom have I seen
The Nuptial Torch do common offices,
Of Marriage and of Death. Cast round your eyes,
When late the streets were so thick strewn with men,
Like Cadmus' brood, they jostled for their passage;
Now look for those erect'd Heads, and see them,
Like Pebbles, paving all our Public ways."

According to Kitasato and Nakagawa (from whose article much of this abstract is taken and will hereafter be alluded to briefly as the Twentieth Century), the first epidemic of historical importance was known as the Justinian plague, commencing in Egypt about the year 542 during the reign of Justinian, and passing on through Constantinople into Liguria, Gaul and Spain, being imported into Marseilles in 588, and ultimately spreading all over Europe. In Constantinople over 10,000 dying in a single day. In the Fourteenth Century a pandemic of vast and frightful dimensions existed, supposed to have originated in China about 1334, and spreading through India and Persia reached Europe in 1347. It prevailed in Russia, Germany, Italy and France, reaching England in 1349, and Norway in 1351. It was generally known as "black death," and the term "pestis inguinalis" also appears in some of the contemporary writings. In some cities over half the population was swept away—the entire number of deaths in Europe alone having been estimated at 25,000,000, and perhaps more in Asiatic countries.

As many as thirteen epidemics are given by Proust (quoted in Twentieth Century) as appearing in different parts of Europe between the Eleventh and Fifteenth centuries; but the next epidemic of importance is given in the "Twentieth Century" as being brought to Marseilles from Syria in 1720 in an infected vessel, when 86,000 fell victims to the scourge. In 1770 and '71 80,000 died from it in Moscow, the infection coming from Jassy through Kief in order to reach this historic but ill-fated city According to Proust, (again quoted in "Twentieth Century"), Constantinople was the seat of two epidemics at the beginning of the present century—one in 1803 with 150,000 deaths, and another in 1813 with 110,000 deaths, with several severe outbreaks in the Balkan peninsula between 1814 and 1841. The last of the European epidemics being that of Vetlianka in the Astrakhan government of Russia in the winter of 1878–9. This

[illegible]

have been cited, from its production in the middle ages among the Israelites by poisoned water, to war, famine, telluric disturbances, inundations, the condition of grain and other food supplies, poverty, occupation and incantation. Race, age and sex have no influence as to liability of an attack, yet certain occupations as rag-dealers and rag-pickers may increase the risk. Propagation of the plague by drinking-water has never been asserted as probable, and indeed the vitality of the plague bacilli in water seems to be of very short duration, not exceeding a day in ordinary drinking-water, and three days in the same water when it has been sterilized. Conditions lowering the vitality of a people or even an individual would have a predisposing influence, but we now know it to be due to the infection of a specific bacillus, and it is to this infection we must look as the one important factor, and it must "be borne in mind, (says the "Twentieth Century") that this risk of infection may be greatly increased by a number of accidental circumstances which cannot always be foreseen or guarded against.

A Vienna correspondent of *The Medical Press and Circular* quotes the late Dr. Müller, who lost his life in his investigations, as follows: "The channels of invasion are evidently in the order of their importance—the skin, even when no obvious lesion exists, the tonsils, and the lungs. Intestinal infection cannot be supported by any inference. Of all cases examined only one had secondary infection of the bowels."

He also says "Müller dissents from the older established view of the plague carbuncle and cutaneous ulcers being the primary gate of invasion. He is of the opinion that these are local secondaries or lymphatic metastasis. Rare cases with lymphangitis ascendens as a primary affection were admittedly observed. The primary gland swelling of the skin seems to be the initial point."

From "Editorial Notes" in *The Med. and Surg. Review of Reviews, London*, Nathan E. Boyd, M.D., Editor, Jan. 1899, we quote the following paragraphs:

"Dr. Simond contributed an important paper to the *Annals de 'l Institut Pasteur*, October 1898, embodying the results of his clinical and experimental studies of the plague, first in the Chinese Province of Quang Si, at Long Tcheon, and later in

India, at Bombay. He adds that the rat is the most important agent of infection, and that the plague always occurs first among the inhabitants of the district where it had first attacked the rats; that a large town is remained confined to that quarter so long as the rats do not emigrate, but when migration begins, the disease follows the routes taken by the infected animals. From numerous observations, he concludes that is sufficient for rats to die of the plague in a house to infect it. Many experiments were made to determine whether rats and other animals could be infected by the alimentary canal. Cultures of the Bacillus pestis and the blood and organs of animals dying of the plague were mixed with the food given to the animals experimented upon, but the results were in every case negative. Mice were subcutaneously injected with watery suspensions of the intestinal contents and with the urine of a rat dead of the plague. Some died within fifteen hours, but death proved to be due to other causes; while the others showed no symptoms of disease."

Dr. Simonds points out that, clinically, it has been established that the point of infection in man is marked by a local re-action —a vesicle, which in a certain number of cases ushers in an attack of the plague. The striking contrast between the difficulty of infecting animals by the alimentary canal, and the ease with which infections by the skin occurred, suggested some active agent by which the virus was deposited on the skin. On *a priori* grounds, he suspected the flea and the bug. Three mice were inoculated with water in which fleas taken from diseased rats had been macerated. One died of typical plague after 80 hours; the other two died in 9 and 12 days respectively, but the B. pestis was not found in their organs. As a result of his observations and experiments, Dr. Simond has concluded that the plague is conveyed from rat to rat, from man to man, from either species to the other, by the agency of parasites, and that prophylaxis should be directed against each and all these factors."

"Simond (*Progressive Medicine, March,* 1899) caused rats and monkeys to feed on cultures of the bacillus, the organs of rats killed by the plague, dejections of rats with the plague, and sputum from the pneumonic form of plague. In none of these did the plague develop (Kitasato, Koch, Bandi and Balistreri, and others have made similar experiments with positive results)."

From the last mentioned work I further quote:

"Simond also caused monkeys to inhale dust impregnated with bacilli, with negative results. He applied to the excoriations of the skin of monkeys the intestinal contents of infected rats and the sputum of pneumonic cases which had been mixed with earth and exposed to the air for 24 hours. No infection followed. Simond strongly favors the view that the flea is the principal direct agent of infection. Rats in freedom when ill with the plague beome covered with fleas. These remain in the hair for several hours after the death of the animal, and it has been found that contagion from a dead rat occurs only when the rat has been dead but a few hours. A man who contracts plague from seizing a dead rat develops inguinal buboes usually and not those of the axilla. The flea found on rats in India is of medium size and gray in color, and when placed on dogs or on a man it attacks them immediately. Fleas are rarely present on rats kept in laboratories, and this may explain the impunity with which these animals are handled when dead of plague. Yersin has shown that the bacillus of plague can grow in the intestine of the fly, and the same may be true of the flea." [Nuttal thoroughly studied the effects of the bacillus pestis when fed to flies. Ogata and the German commission recognized the possibility of infection by fleas, but Simond is the first to study the subject at all thoroughly].

"Kobler (Zeitschrift f. Hygiene, xxviii, 261, quoted in Progressive Medicine), finds that the conclusions of the Vienna Convention remain unshaken in spite of the important work that has been done since then. Infection may be carried by wearing apparel, rats, mice, hogs, flies, fleas, and ants. The bacillus is readily killed by drying, and lives in water but a short time."

And from the same we find that Yokota (quoted from Centralblat f. Bacteriologie, xxiii, 1030) "determined the duration of life of the bacillus in the buried body. Mice dead of plague were enclosed in wooden boxes and buried in garden-earth which was kept moist. They were dug up after varying lengths of time. Bacilli were never found in the earth, and they had always disappeared from the bodies inside of 20 to 30 days, and even in a shorter time in warm weather when saprophytes flourished."

Kitasato discovered the Bacillus Pestis in Hong Kong in

[illegible] about the same time. [illegible] however. The bacillus [illegible] method and coagulates [illegible] particulars. This may [illegible] of the two investigators.

[illegible] and Kanagawa's [illegible] some repetition [illegible] T. E., and Kitasato's [illegible]

[illegible] T. E. [illegible] does not possess the [illegible] the matter. Owing to [illegible] difficult to give. It [illegible] T. E. is not [illegible] and is decolorized [illegible] are equally conspicuous [illegible] T. E. is extremely luxuriant, and [illegible] continues for a week, [illegible] projecting a good deal [illegible] Very young colonies [illegible] the other hand, the [illegible] T. E. is extremely delicate, transparent, [illegible] and some growing [illegible] incubation, presenting [illegible] the growth of diplo- [illegible] uniformly turbid by [illegible] T. E. [illegible] is not coagulated by [illegible] T. E. [illegible] It is curious to observe [illegible] T. E. are found in [illegible] case [illegible] Kitasato maintains [illegible] T. E. [illegible] constantly in the blood, [illegible] in the blood of convales- [illegible] symptoms have subsided."

[illegible] fact that a high degree of [illegible] are of paramount im- [illegible] slight, of avoiding [illegible] of resistance in the [illegible] strict and rigid, of in- [illegible] we must rely and turn to [illegible] Apparent hardness,

and real stringency of the most effective quarantine measures must at once be resorted to on the very first indications of its appearance, together with such details as will effectually destroy every bacillus that may be brought to, or subsequently develop in a locality. No half-measures, or slip-shod efforts should be tolerated. The absolute segregation and thorough disinfection of both persons and things is imperative in so dread a disease that respects neither man, woman nor child, nor their conditions, nor seasons, nor surroundings, nor locality. Avoid infection—there lies the only line of safety; admit it, and most dire results will follow. Careful inspection, perfect isolation, and thorough disinfection are the watchwords. Like some other infectious diseases, one attack seems to confer future immunity.

In considering its pathalogical anatomy I may quote from "Twentieth Century" that rigor mortis is marked and early; a rise in post-mortem temperature is the rule, and is sometimes very marked, going up to the very top of an ordinary clinical thermometer, even as long as four hours after death. Petechiæ and subcutaneous extravasations are not so frequently observed in modern epidemics as formerly. The progress of the disease is too rapid for marked emaciation. Inguinal buboes, followed by similar process in the iliac, lumbar or hypogastric glands; the mesentery rarely, if ever, being the seat of primary, and frequently escaping secondary, developments. The periglandular tissues are found infiltrated with gelatinous and hemorrhagic exudations and are filled with an abundant growth of bacilli P. Inflammatory changes in this tissue makes the buboes immovable beneath the skin, and the succeeding suppuration and ulceration extends from the glands both to this tissue and the skin, in which we will find both micrococci and streptococci.

Occasionally in mild or favorable cases the buboes undergo resolution; but usually suppuration is the result, leaving ulcers that are slow to cicatrize. Inflammatory processes of a like nature may be observed in all the lymphatic structures, as the mouth and pharynx, and in the lymph follicles of the stomach and intestines.

The dura mater congested, and the pia the seat of extensive extravasations and pronounced œdema, with, sometimes, extravasations of blood in the arachnoid.

[illegible] and sometimes œdema [illegible] Both ventricular and cerebr[illegible] in quantity.

[illegible] a great increase in the number of leuc[illegible] diminished. Extravasations ma[illegible] membranes, in the muscles, in the nerv[illegible] of the blood-vessels, under serous mem[illegible] into the serous cavities, and in th[illegible] viscera.

[illegible] and the right ventricle especially, dilated [illegible] anæmic and flabby, the seat of paren[illegible] in some cases associated with fatty infil[illegible] Century.")

[illegible] ulcerative changes in the larynx, especially i[illegible] ulcers are interrupted, and catarrh of the bronchi not[illegible] The lungs hyperæmic and congested, [illegible] congestion. In pneumonic plague, we [illegible] broncho-pneumonia, surrounded by a zone of [illegible] In some cases the alveoli are found filled with [illegible] swarming with plague bacilli, but without [illegible] in the pulmonary parenchyma. Multiple ab[illegible] have been occasionally noted. Pleurisie[illegible] are observed in the pneumonic cases, and also in patients [illegible] bubo in the axilla. ("Twentieth Century.")

[illegible] changes in the stomach almost constant and well [illegible] less frequent, but larger hemorrhages are [illegible] exceptional, but ulcers sometimes found. [illegible] and catarrhal changes are present in [illegible] the swelling of the lymphatic structures [illegible] the mesenteric glands swollen and congested, and there [illegible] in the folds of the mesentery. ("Twentieth [illegible]

[illegible] constantly enlarged, sometimes to great [illegible] the pulp is found congested and soft, and [illegible] The kidneys congested and enlarged [illegible] tubules particularly the [illegible] The mucous membranes [illegible] numerous ecchymoses, with at [illegible] hemorrhages may be found [illegible]

of the bladder, which mav be contracted, or distended with urine. The liver enlarged, hyperæmic, cloudy swelling of the hepatic cells, and the blood-vessels dilated. Abscess rarely observed, and still more rarely necrotic points in this organ. The pancreas, thyroid and salivary glands are always found normal. ("Twentieth Century.")

The specific bacilli are found in the organs mentioned as showing morbid changes in the blood, and particularly in the necrotic foci and the lymph channels communicating therewith.

Kitasato and Nakagawa ("Twentieth Century") quote Aoyama as fixing the duration of the incubation period as being between 2 and 7 days; and Hirsch and Sommerbrodt from 2½ to 8 days; giving the average at 5½ days. Lowson, they say, mentions a case in which it could not have been less than 9 days. To be on the safe side our efforts at isolation should not be less than 2 weeks at least.

Kitasato and Nakagawa give three different types of the disease in their symptomatology, which is both graphic and complete—1, glandular or bubonic; 2, pestis siderans, or plague septicemia; and 3, plague pneumonia. The more condensed picture of Georg Sticker (*Munchener Med. Wochenschrift*, xlv, 11) in *Progressive Medicine, March*, 1899, affords better material for quotation in an article already, I fear, too lengthy.

"Several clinical types occur. The onset is sudden, with rapidly increasing weakness, clouding of senses, unconsciousness, and paralysis of the arterial system. Local appearances may be insignificant. The most frequent and characteristic localization of the bacilli is in the glands, and has given the disease its name. Painful, quickly or slowly growing swellings appear in the inguinal, axillary, cervical, or other glands, exceptionally several regions being affected at once. Fever begins acutely and is continuous or remittent, and severe headache develops. The pulse is extremely frequent, elastic, and dicrotic at first, but it soon becomes soft. The illness reaches its height on the first day or, more seldom, on the second or third, death in 50 per cent. to 90 per cent. of the cases occurring between the third and fifth days inclusive.

"Any of the lymphatic glands may be the first to be inflamed, glands of the first order often appearing to be passed over, while

[illegible] of the second or third order may be affected. Whole [illegible] of peripheral glands acutely inflamed, with œdema of [illegible] may [illegible] tumors as large as the fist.

[illegible] a pustule or furuncle in the skin is the [illegible] gland being swollen, and the two [illegible] lines of lymphangitis. Later, numerous pustules [illegible] along the line, the bubo itself becoming a [illegible] The primary pustule is usually on the extremities [illegible] the [illegible], in the gluteal region, or [illegible] does not occur the glands suppurate [illegible]

[illegible] gastro-intestinal irritation appear, such [illegible] and there may be hemorrhages from [illegible] as shown by black stools, bloody urine, [illegible] from the female genitalia. Bleeding into the skin, [illegible] was considered to be pathognomonic and [illegible] "Black Death," was rare in Bombay, and [illegible] was a small amount.

[illegible] form of plague is characterized by pustules [illegible] resembling the initial lesion in the bubonic form. A small [illegible] appears anywhere, having a [illegible] sensation, while the skin in the neighborhood [illegible] and burning. A vesicle develops, having cloudy [illegible] which grows to the size of a hazelnut and finally forms [illegible] which may be surrounded by an [illegible] The general symptoms are milder than in the [illegible] form, but secondary bubo formation or septicæmia may [illegible]

[illegible] form is the plague pneumonia. It begins [illegible] fever, and râles are heard over one or [illegible] The sputum is of a catarrhal pneumonia, [illegible] white or reddish, which con[illegible] There is severe depression or [illegible] on the third day. In other [illegible] dullness over an upper or a lower [illegible] or rusty sputum, containing the [illegible] the pneumococcus, streptococcus, [illegible] There may really be a primary diplo[illegible] secondary invasion by the plague bacil-

lus. In two cases there was in the center of the lobe a hemorrhagic necrosis which, had life continued, might have developed in a few hours into gangrene with profuse hæmoptysis, which occurred so frequently in the Black Death. A chronic pneumonia occurs. Fresh or healed tuberculous nodes seem to form a favorable seat for the growth of the plague bacillus. Increase of mortality from tuberculosis during a plague epidemic was noted of old, and recent Bombay statistics show the same. Pneumouic plague is invariably fatal. In the present epidemic it is not nearly so frequent as in the earlier ones.

"Profuse hemorrhage and gangrene of the lungs have not been noticed in the Bombay epidemic, nor has gangrene of the nose, lips, or feet.

"The existence of an intestinal form of plague has been denied by many, but in other epidemics it is distinctly described, clinically and anatomically, and the German Commission has produced it experimentally by feeding infected material to rats and monkeys. The symptoms resemble intestinal anthrax or an extremely acute typhoid fever. Carbuncles have been found in the gastric mucous membrane.

"In all these forms the bacilli may reach the blood and produce a general sepsis with acute spleen tumor and death in a few hours or days. A primary septicæmia without local lesions is usually described but it probably does not exist. Many cases in which no lesion was found cliuically came to autopsy by the German and Austrian Commission, and invariably the section revealed some hemorrhagic glandular or pulmonary focus which was the primary seat of the disease.

"General sepsis may give rise to a secondary meningitis, emboli in liver or kidneys, cholecystitis, and pericholecystitis.

"Septico-pyœmia may occur with purulent metastases, due to a mixed infection with streptococci.

"Suppuration in buboes is always a result of mixed infection with pus-forming organisms. Streptococci or staphylococci are regularly found in the suppurating glands, but puriform liquefaction of buboes may occur without the presence of organisms, a distinction which has not hitherto been made.

"During the epidemic many cases came to the hospital with early symptoms of plague, which, however, recovered in a few

[illegible] were purely hysterical, but two cases de- [illegible] of plague—soft arteries with frequent [illegible] of the palate."

[illegible] slight allusion to temperature, yet its [illegible] being from 102.2° to 104° F. on the day [illegible] or 48 hours after. Hyperpyrexia is not [illegible] and above, has been seen and is of [illegible] Then again there may be a gradual rise, [illegible] until as late as the end of the fourth [illegible]. The fever is continuous at the beginning, [illegible] or remitting type the result of [illegible]

[illegible] and complications we again resort to [illegible] Medicine, March, 1899:

"[illegible] are the sudden onset, the [illegible] frequent pulse of low tension [illegible] conjunctiva, and a tongue having [illegible] appearing as though plastered [illegible] plague must be distinguished [illegible] pernicious malarial fever, typhoid [illegible]

"[illegible] in pneumonic cases in the sputum, [illegible] and by spleen puncture. [illegible] in the skin pustules. Puncture of a [illegible] and is never necessary for diag- [illegible] the bacilli are only excep- [illegible] the bacilli rapidly disappear, as [illegible] in which they were found in the [illegible] be demonstrated at the autopsy. [illegible] in fresh tissue, but not in sections of the [illegible] and preserved.

"[illegible] in making a diagnosis after recov- [illegible] is not of value for this pur- [illegible] the reaction is the same as in [illegible] who have not had plague."

[illegible] Stricker are "continuing paral- [illegible] of the vagus, vasomotor par- [illegible] of the palate, aphonia, aphasia, [illegible] paraplegia, incomplete heminle-

gia, amaurosis, and deafness of central origin;" also frequently parenchymatous keratitis, followed by iridocyclitis, commonly and not infrequently panophthalmia, both eyes being most often involved. "A chronic tuberculosis," he says, "usually becomes acute, due, probably, to lowered vitality."

When treatment is to be considered the old adage, "prevention is better than cure," is by far of the greatest importance. Yet there is a possibility that some one of my readers may be called on to care for a case of bubonic plague—may the day be far distant, in the hope that as time "puts his sickle in among the days," with the observations of the past, some thorough, careful and practical clinician may evolve more satisfactory and successful methods than have yet been attained.

Prof. J. C. Wilson, M.D., of Philadelphia in the first volume of "Pepper's System of Medicine," 1885, gives the following brief suggestions:

"The treatment of individual cases must, in the present state of knowledge, be expectant and symptomatic. * * * *

"Physicians who have written from personal observation unite in advising a treatment of the simplest kind. Ventilation, cleanliness, a liquid diet, abundant cool drinks, are to be ordered. The initial collapse and the evidence of failure of circulation call for the use of stimulants, and especially of alcohol. Cold or tepid sponging, in accordance with the sensations of the patient, may be resorted to. If there be high fever, an energetic antipyretic treatment might be carried out. Cold affusion to the head is said to have been of use in many instances.

"Purging, blood-letting, mercurials, blistering, emetics, have proved either positively injurious or altogether without effect upon the course of the disease.

"Of drugs, ammonium chloride, salicylic acid, carbolic acid, quinine, have been administered without positive effect.

"It is stated that the free inunction of oil from the beginning of the attack was affirmed to exert a favorable influence.

"In early times the buboes were often incised, or even excised, as soon as they began to swell. More recently they have been treated with leeches or inunctions of mercurial ointment. The treatment by poultices and the evacuation of pus as soon as it can be detected, is at present regarded with favor. Carbuncles

[illegible] with accepted surgical [illegible]

[illegible] are even [illegible] for treatment. The treatment [illegible] and expectant. [illegible] has been found beneficial [illegible] but with doubtful [illegible] is the injection [illegible] spasging, often re- [illegible] in effect. [illegible] diet, [illegible] to guard against cardiac in- [illegible] and [illegible] treatment, such [illegible] the existence of [illegible] Early [illegible] of magnesium sulphate have been [illegible] especially if the [illegible] surgical interfer- [illegible]

[illegible] measure [illegible] has been attended with far more sat- [illegible] results than anything heretofore suggested. Kitasato's [illegible] have been [illegible] and he seems [illegible] in the treatment of plague. Yersin's se- [illegible] in Bombay. It seems [illegible] the re- [illegible] while other measures do not give so [illegible] Its efficacy therefore needs further de- [illegible]

[illegible] of the bacillus" says Professor Mal- [illegible] studies in artificial immunity have led to [illegible] based upon the pro- [illegible] of artificial immunity. Sidebotham's method, [illegible] is practically resembling [illegible] The higher cultures of the bacillus [illegible] at 60° C. for one hour, a [illegible] temperature which effectually kills the bacilli without seriously [illegible] the toxins. Experiments on animals having shown

this method to be effectual in protecting against infection, it has been used extensively in human beings, and the results carefully noted. Haffkine and Bannerman reported recent statistics to the British Medical Association (*British Med. Jour.*, 1899, vol. II, p. 853). In general, those inoculated show a diminished susceptibility, and when infected the disease runs, in them, a mild course which seldom ends fatally. In each village or institution experimented upon, about half the inhabitants or inmates were inoculated."

At Byculla prison, of 173 not inoculated 12 took the disease, with 6 deaths, and at the same place of 148 inoculated 2 took the disease, deaths none. At Lower Danaon—not inoculated 6033, deaths 1482; while of 2193 inoculated 36 died; a reduction in mortality of 89.2 per cent. The same efforts at Lanowli gave a reduction of 85.7 per cent.; at Kirku, 77.9 per cent.; among the members of Khoja Mussulman Co., of Bombay, a reduction of 86 per cent.; and more recent statistics reported to the London *Lancet*, 1898, vol. II, p. 1806, from Dharwar, where 1118 cases with 879 deaths occurred among 3089 individuals not inoculated, and 106 cases with 37 deaths among 3074 inoculated once, while only 17 cases and 4 deaths are recorded among 3557 who were inoculated twice.

Koch (*Reise Berichte*, Berlin, 1898) found that Haffkine's method was of undoubted value, and while not protecting absolutely, the cases which developed after inoculation were usually mild. Surgeon Maj.-Gen. R. Harvey (*Indian Lancet*, vol. XI, p. 537) finds the inoculations of great value; and the Bombay Medical Union, a society composed of native Indian physicians, declared it to be the opinion of the Society that Haffkine's prophylactic is a reliable safeguard against the plague. (*Lancet*, 1898 vol. II, p. 1806).

Yersin's method is the inoculation with the serum of horses which have been rendered immune by the injection into their veins of living cultures of bacilli. His first experiments at Canton gave a mortality of only 7.6 per cent.; but at Bombay it ran up to 40 per cent. Later, a stronger serum has been used, with more promising results. I might go further with other recent statements as to orrotherapy, but conclude with the following extract, clipped from the *N.Y. Medical Times*, Nov., 1899:

"The bubonic plague has reached Oporto. All the experiments with the Pasteur serum have been completely successful, and not one death is reported among the plague-stricken treated by the serum. The entire French colony of the town and the personnel of the Consulate have been vaccinated by Dr. Calmette. In the plague hospital of Bonsom the patients seem to be doing well."

It is more than probable that to the serum and antitoxin investigations we may look to find a way to avert or render harmless a terrible disease. Investigations have been actively engaged in in recent years under governmental support and by individual efforts. Since the close of the war between China and Japan a personal friend of the writer, and one whom he had the honor of instructing in the rudiments of his profession and who had been active service in the Medical Department of the United States Navy for nearly a decade, with honor to himself and credit to the service of the public service, was detached from his station in order to make investigations of this disease where it was then raging in the Orient. From my personal acquaintance, I feel assured that his observations would be of more than passing interest. But I regret to say that they have been buried in the archives of the Navy Department, and it may be a Long time before they see the light. Repeated requests for even a brief abstract of his notes have been declined—a strict disciplinarian, he believes in observing the regulations of his branch of the service as well as seeing them carried out.

I was stationed at San Francisco from his post of observation and was severely censured a dilletante medical man for carrying around in his pocket in a small vial, active culture colonies of the bacillus in round terms—just such as are and have been in the navy, as well as in "the army"—for his insensate idiocy in trying to create a panic by the exhibition in so careless a manner of what was far more dangerous and disastrous in its effects than a panic or lynching. Carelessness and indifference on the part of the scientists, together with our greatly increased commercial relations with the entire world may at any day or any hour bring us face to face with a question that has so far baffled the [illegible] scientists of the past.

Clinical Reports.

RUPTURE OF THE QUADRICEPS EXTENSOR TENDON.*

BY R. E. FORT, M.D.,
Superintendent Nashville City Hospital.

Case I:—Thomas Poole, aged 17, occupation blacksmith, was admitted to the hospital March 7th, 1899, with a rupture of the quadriceps extensor tendon, immediately above the patella, caused by indirect violence, having been thrown from a buggy alighting on his feet, the effort coincident upon the attempt to keep from falling forward produced the rupture. An operation was advised, and after complete preparation the operation was done after the most thorough technique. An incision was made in the median line of the leg, beginning at the upper aspect of the patella upward four inches, to which point the tendon had retracted; guarding my incision carefully to avoid opening the synovial cavity. Enough fragments of tendon were attached to the patella to obviate the necessity of drilling into it. The first sutures introduced were those which coapted the posterior surfaces of the tendon. These being tied, three transfixion sutures were made through the anterior and posterior fragments attached to the patella, and through the entire thickness of the tendon. These were left untied, and both lateral surfaces were coapted in the same manner as the posterior. The transfixion sutures were then tied and the anterior surfaces were closed as the others had been. The cutaneous incision was then closed; silkworm-gut having been used in the entire operation. The operation was performed under a continuous stream of bi-chloride of mercury, 1–4000. The wound was sealed with flexible collodion in which was incorporated 20 per cent. iodoform. A plaster cast was put

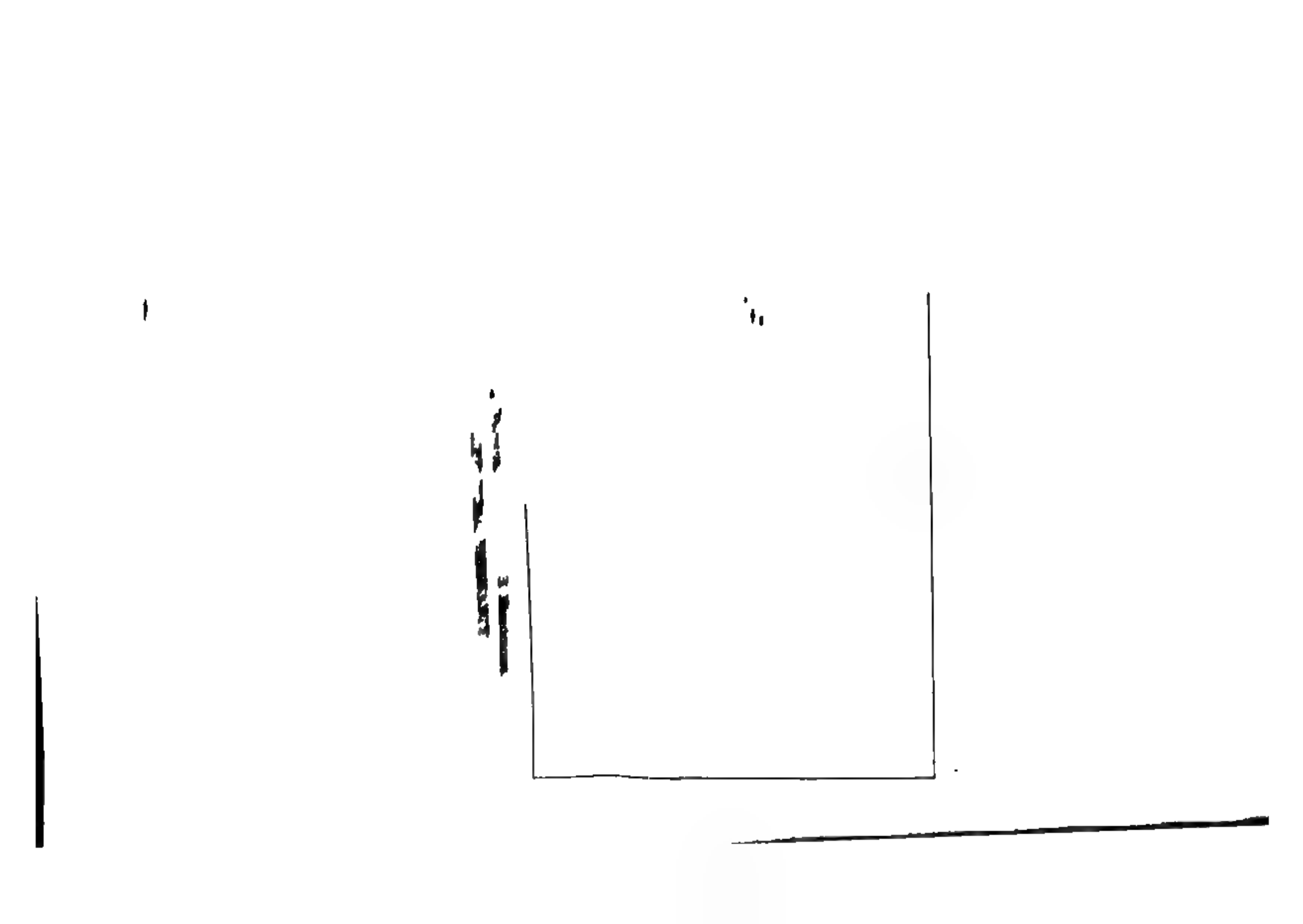
*Read at the meeting of the Middle Tennessee Medical Assoiation, November, 1899.

[illegible]

[illegible] of the [illegible] [illegible] [illegible]

A. Organized Clot. B. Pedicle. C. Tube. D. Omentum.

LEFT TUBAL PREGNANCY.



visiting her November 26, but was called again on December 23, and found her in collapse. Diagnosed tubal pregnancy with rupture, and advised immediate operation; this was refused by family. Two days later she had severe uterine hemorrhage, but still refused operation. Blood was clotted and very dark, with a great quantity of decidual membrane. As my advice was refused I bowed out of the case. On February 2 was called again, and found that she had had two severe floodings, with a continuous flow. She now agreed to go to the hospital for operation."

The only additional history elicited was that the patient was 24 years old, married eight years, mother of two children, older, if living, would be seven years old, younger five years. From last gestation she gives a history of sterility except premature delivery mentioned above. I examined her on the morning of February 23, temperature 102⅘, pulse 108, respiration 28; found milk in both breasts; hard, irregular mass, reaching point midway between symphysis pubis and umbilicus, more prominent on the left at its upper aspect.

Vaginal examination revealed uterus impacted in hollow of sacrum.

Hard, immovable mass in each vaginal fornix, high up. I concurred in the diagnosis of Dr. Stonestreet, and advised operation. The abdomen was opened the following day. I first encountered extensive omental adhesions, and, owing to omental varicosity, I deemed it unwise to attempt to break up these adadhesions but tied off omentum. I next encountered a loop or small intestine denseley adherent, entirely across the upper part of the tumor. Freeing this, I next freed the adhesions to the cæcum, next from the peritoneum covering right iliacus muscle; working backward and to the left I now encountered those attached to the rectum which were more resistant and gave me more concern than any other part of the operation, fearing that I would do serious harm to the rectum. I then attacked those attached to the posterior surface of the left broad ligament. The incision was enlarged to five inches, and an attempt was made to deliver the tumor but failed. I found it bound down to the posterior surface of the right broad ligament, and right tube and ovary and bladder. The tumor was now delivered, and found attached to the fundus uteri, by a broad, band-like pedicle.

[illegible] twisted upward [illegible] by a fibro-plastic [illegible] peritonitis of [illegible] in the ampulla [illegible] in itself.

[illegible] of this tubal preg- [illegible] mechanical. First version of the [illegible] of which is a frequent [illegible] uneventful re- [illegible] in the [illegible] entirely [illegible]

[illegible]

[illegible]—Mr. Moody [illegible] in his sermons. [illegible] of truth and [illegible] and noble deeds; [illegible] the community, and [illegible] the past week one [illegible] having endorsed the [illegible] deny that he had [illegible] without calling [illegible] Mr. [illegible] took occasion [illegible] saving of souls and [illegible] propositions, [illegible] believe that doctors [illegible] cannot [illegible] the ministry is [illegible] work have I [illegible] and need [illegible] to [illegible] of the [illegible] material resources, [illegible] seeing [illegible] men [illegible] and

God heals through doctors and through medicines. Do not be carried away by the raving of fanaticism. We have a new 'ism' in America about every year—beware of the 'isms!' What would I do if I fell sick? Get the best doctor in Chicago, trust to him, and trust to the Lord to work through him! The doctors have done wonders as their knowledge has grown—they have reduced the dangers of death from diseases that once slew all they touched—and the doctors, if God helps them, will yet find a way to stop the ravages of other terrors!"—*Journal American Medical Association.* [Sam Jones holds like views—He takes the pill, powder or potion as the Doctor directs, and prays the good Lord to direct the same aright.—ED. S. P.]

BLOOD LETTING.—The backward swing of the pendulum is somewhat inticipated in regard to bleeding by Briscoe in the *Clinical Journal* for the September issue.

He states that the condition of the system indicating blood-letting is expressed by the word suffocation.

Local conditions may require bleeding as alveolar abscess, ordinary inflammation, chronic inflammation, thecal abscess or any tissue requiring the relief of tension.

He states that every surgeon should carry some kind of venesector in his pocket.

The states of the general system denoting venesection are included in the following conditions:

When you find the venous system gorged in primary affections of the lungs or in the secondary congestions, as in heart disease, or from paralytic conditions, as in apoplexy, you cannot be wrong in bleeding; you relieve the venous system as well as the heart, and allow the circulatory apparatus to right itself. The objection sometimes made that the patient is too weak, as indicated by the pulse, is futile, since, owing to the small amount of blood which reaches the left ventricle to be propelled onwards, the pulse is naturally small.—*Charlotte Medical Journal.*

UTERINE CANCER AND HYSTERECTOMY.—It is of interest that the prognosis is relatively favorable after hysterectomy for

uterine cancer. This is, of course, due to the late period at which metastases are prone to appear. There are two forms of cancer of the uterus, the flat-celled of the cervix and the adenocarcinoma of the body. The latter originates in the mucous membrane, extends down slowly into the wall of the uterus and it is a significant fact that the metastases occur generally quite late. It is as if the wall of the uterus was a sort of case and prevented the ready entrance of the cells into the lymphatic or blood current, as occurs with cancers developing in the interior or ovarian cells. The flat-celled epithelioma does not form secondary deposits in the lymphatic glands so readily as most cancers do, and this is true in general of flat-celled epithelioma. —*Prof. Welch in Johns Hopkins Bulletin.*

Lactic Acid in Leucorrhea.—In an artice by Seguirey in *Jour. de Med. de Paris*, attention is called to the use of lactic acid in neutralizing infectious bacteria in the vagina. He demonstrated that douches containing 3 per cent. of lactic acid quickly deodorized and diminished the discharge, besides changing its color.

It was found also that lactic acid, either pure or in solution, caused an abundant desquamation of epithelium when applied to the cervix or to the cavity of the uterus, and led to a cure of endometritis or endocervicitis with ectropion.—*Journal Am. Med. Association.*

Excessive Perspiration of the Feet.—R. Adler considers that all other methods of treatment have only historical interest since the advent of formalin and tannoform. He explains their action and advocates them warmly in *Deutche Med. Woch* , October 5, confirming the recommendations of formalin for this purpose by other writers noted in the *Journal.* He paints the sole with formalin once a day, and the spaces between the toes he powders with tannoform, if formalin cannot be supported. If both sole and toes are affected, he combines the two, painting also the under surface of the toes with the formalin. Care must be taken not to inhale the fumes of the formalin as it

produces unpleasant sensations in the mouth, nose and conjunctiva. If there are any signs of maceration the tannoform must be used alone until entirely healed, when the formalin should be applied.—*Journal of American Medical Association.*

PROFESSORS WILLIAM OSLER and Howard Kelly, of Baltimore, were last month elected honorary members of the Royal Academy of Medicine of Ireland.

ORROTHERAPHY IN BUBONIC PLAGUE.—The commission, the members of which were Dr. Calmette and Dr. Salembeni, sent out by the Pasteur Institute to study and fight against the plague in Oporto, returned to Paris on October 2. The members of the Pasteur Institute feted Dr. Calmette, who has returned delighted with the result of the commission—such being, in fact, a complete triumph for the antiplague serum. The International Commission appointed to examine the question had come to the unanimous conclusion that Yersin's serum was worthy to be extolled as a preparation of value. No doubt exists of its efficacy as a preventive, and after the first few days' excitement and rioting, during which Dr. Salembeni was injured by being hit on the knee with a stone, the inhabitants of Oporto finally recognized the benefits of the inoculation; and during the last three days Dr. Calmette inoculated 423 workmen, firemen who carried dead bodies, and small shopkeepers. The members of the commission in the first place inoculated themselves. The efficacy was, however, less in cases with decided symptoms. Dr. Calmette was successful even in serious cases by injecting the serum directly into the veins.—*Medical Standard.*

ALL FISH THAT CAME TO HIS NET.—Mrs. Briske—"Johnny, did the doctor call while I was out?"

Little Johnny (stopping his play)—"Yes'm. He felt my pulse an' looked at my tongue, and shook his head and said it was a very serious case, and he left this prescription and said he'd call again before night."

Mrs. Briske—"Gracious me! It wasn't you I sent him to see, it was the baby."—*New York Weekly.*

THE TREATMENT OF GONORRHEAL RHEUMATISM —Dr. Carlton (*N. Y. Med. Times*) says that until within the past two months gonorrheal rheumatism has been the bane of the genito-urinary ward, but since the use of the Esmarch bandage has been intituted the results have been as brilliant as unexpected. The bandage is applied as follows: If the gonorrheal rheumatism is in the knee, the bandage is applied from the ankle to the lower border of the knee; another bandage is applied above the knee. The bandages are wound sufficiently tight to obstruct the circulation, and left on from fifteen minutes to one hour, according to the tolerance of the patient. Dr. Carlton says the bandages destroy the gonococci, by depriving them of oxygen. After from one to six applications a cure is effected.—*Indian Lancet.*

TO AVOID NAUSEA AND VOMITING FOLLOWING ANESTHESIA. —Blumfield makes the following recommendations: 1. To use as little of the anesthetic as possible consistent with perfect anesthesia; 2, to wash out the stomach at the close of the operation, when much mucous has been swallowed: 3, in protracted operations to substitute chloroform for ether after three-quarters of an hour; 4, to move the patient about as little as possible during and after the operation; 5, to place him on his right side in bed, with the head only slightly raised; 6, to give nothing but hot, thin liquid in small quantity for at least eight hours afterward; 7, to avoid altering the temperature of the room for several hours.—*The Lancet*, Sept. 23, 1899.

THE EDITORIAL GAME LAWS are stated in an Eastern publication to be as follows: "Book agents may be killed from Oct. 1 to Sept. 1; spring poets, from March 1 to June 1; scandal mongers, from April 1 to Feb. 1; umbrella borrowers, from Aug. 1 to Nov. 1, and from Feb. 1 to May 1. Every man who accepts a newspaper for two years and on being presented with the bill says, "I never ordered it," may be killed on the spot without reserve or relief."—*Med. Review.*

OIL OF ERIGERON in one to five drops every three hours is valuable in uterine hemorrhages.

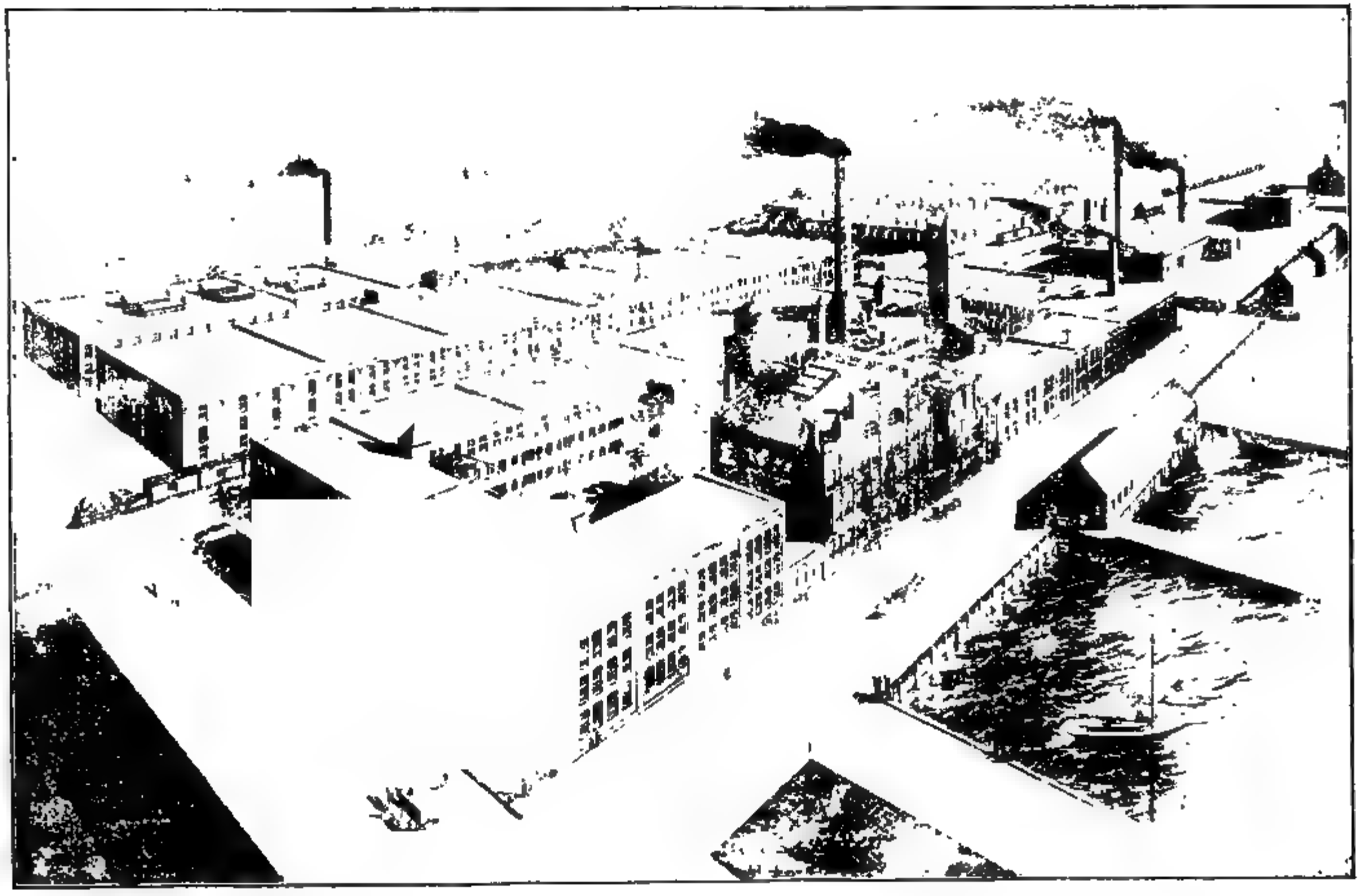
Editorial.

A TRIP TO THE LABORATORY OF PARKE, DAVIS & CO.

At the recent meeting of the American Pharmaceutical Association at Put-in-Bay, O., the well-known manufacturing pharmaceutical firm of Parke, Davis & Co., Detroit, extended a general invitation to the members of the Association to visit their establishment. In company with ninety-three other people, members and friends of the Association, the writer availed himself of the opportunity offered to inspect this world-wide famous establishment. All those intending to join the excursion assembled on the wharf, and took the steamer "Frank E. Kirby," for Detroit, Sunday, September 10th, 1899, at 3:15 p.m. The boat put in at the dock at the foot of one of Detroit's busiest streets, at about 7 p.m. The first message that greeted our ears was from a chorus of voices on the dock giving the command "Parke, Davis & Co. guests step to the right." Immediately after marshalling all the crew, we were conducted to the street cars, of which several were reserved for us at a near-by corner. While *en route* to the hotel, numerous obliging young men distributed cards bearing the name of the visitor, and the number of her or his room at the hotel. They also gave us the pleasing information that the key would be found in the keyhole of the door, and supper would be ready in the dining-room.

Supper having been partaken of, a refreshing night's sleep indulged in, followed by a strength-giving breakfast the next morning, all the party went aboard of the trolley cars, by 8:30 a.m., and landed therefrom at the offices and works to be inspected about 9 o'clock.

The work of inspection began at the storehouse in which are kept the bicycles of the employes. In this building are stored over 500 two-wheel machines belonging to both women and men employes, giving a fair idea of the magnitude of the concern. From this building we were at once ushered into the laboratory proper, passing in succession through the various departments of packing, storing and manufacturing. It would take days to properly inspect, and many pages could be employed in recording the experiences, sensations and observations of the wide-awake observer. We were taken, through long rows of barrel packages of the various galenical preparations of the Pharmacopœia, into the extraction rooms, where we could see immense operations of thousands of pounds of material being percolated, to the very small operation intended for ex-



Unlike many birdseye views of manufacturing plants, the illustration on the opposite page is not exaggerated in the least, as will readily be perceived from the following description :

The long, one-story building in the middle foreground is brick with an iron roof 126 x 32 feet, and is exclusively devoted to storing during working hours over 500 bicycles belonging to as many employes, the waters of Detroit River on their way to Lake Erie passing its foundation.

The two gable-roofed houses some distauce to the right are respectfu ly designed for the manufacture of combustible compounds and the storage of inflammable chemicals, and are of iron construction.

The square brick building beyond comprises the stables for horses used in the trucking done by the firm and is 48 x 48 feet in size

The main building occupies the whole block bounded by Atwater and Guoin Streets and Jos Campau and McDougal Avenues. It is 518 x 201 feet in size with a court in the center.

Across Guoin Street and stretching from Jos. Campau to McDougal Avenue, is a three story brick addition 60 feet deep by 518 feet in length.

Back of this is a three-story brick building 180 by 60 feet in which some of the capsules marketed by Parke, Davis & Co. are manufactur ed.

Over to the extreme right are shown the twin buildings of the Biological Department Each of these buildings is 163 x 15£ feet in size. The plant covers three entire city squares, and part of a fourth.

Birdseye View of Parke, Davis &Co.'s Manufacturing Plants and the New Annex—the latter 518 x 60 feet.

perimental purposes. We were allowed to linger at will beside the immense distillery apparatus, and view the process of recovering alcohol from an exhausted marc, to the making of oil of white sandalwood. From the stills to the vacuum pans is but a step, several of which pans, while of the firm's own make and invention, are openly exhibited. Following this exhibit quite naturally would come the open steam pans, the apparatus for drying and coating of pills, the mixing machines for mixing pill mass, the cutting, finishing, and final storing.

As special examples of interesting machinery, I would point out the one used for making soluble elastic capsules, then that for making and filling pearls and globules, and then the wonderful little machine employed for filling and capping the ordinary hard shell, oblong capsules.

It would simply be impossible for one to explain in such an article as this the intricate apparatus employed and the long and tedious processes used by this firm in the chemical laboratories in which the testing and proving of products are done. Suffice to say that quite a number of large and completely equipped rooms are given up to this work alone, and employment given to some twenty odd experts, whose entire attention is taken up with the work.

Before leaving this building for the Biological Department, I must not forget to mention the compressed herb department. Here were seen an immense number of barrels of well-picked and scrupulously cleaned herbs in all the various stages of the process to the final pressing, cutting, wrapping and packing.

The Biological Department and the products of its laboratory could well satisfy an ordinary firm's demands for business in itself. Here we were shown and had explained to us all the various stages in the preparation of the various serums which the medical science of to-day requires for its needs. We saw here the horses from which the [anti] diphtheritic serum is obtained, and were given an opportunity to observe the inoculation of the animal, as well as to witness the withdrawing of the blood from which the serum is separated. In near-by bins are kept thousands of guinea-pigs used by the firm for the standardization of these serums, which processes were minutely explained by obliging attendants. In this department are also housed many animals of various kinds, as well as fowls.

These, it was explained to us, are employed by the firm in testing the physiological effects of their drug products. In connection with this, and in explanation of that work, we were conducted through a special laboratory furnished with delicate apparatus of various kinds, intended to assist in and record these observations.

A description of the tour made would not be complete without the bestowal of highest commendations on the firm, because of the scrupulous neatness and cleanliness of every particular corner of the entire establishment, and of the paternal care with which the health, comfort and safety of every employe are looked after, this last remark applying to the condition of the workrooms, the cloak rooms, the discipline and effectiveness of the fire department, manned and officered out of the employes of the institution.

In conclusion, Mr. Editor, if I may become a little personal, I can say for myself, as well as for all of the party of which I was an immediate member, that I was never in my life so royally entertained or given such an opportunity from an educational standpoint as was afforded through this little side trip of the American Pharmaceutical Association meeting, and that it gives me much pleasure to join my voice with all the rest in the kindliest applause and well-wishes for Parke, Davis & Co.—*F. W. E Stedem, of Philadelphia, in the Alumni Report.*

JENNER'S IMMORTAL DISCOVERY,

AND ITS METHOD OF PERPETUATION SAFELY AND SATISFACTORILY BY MESSRS. PARKE, DAVIS & CO., OF DETROIT, MICH.

The vivid descriptions of smallpox epidemics in the pages of the great historians ought to teach modern mortals what the loathsome disease must have meant in horror and dread to all mankind before the efficacy of vaccination became generally acknowledged.

Even more impressive than the classical pictures of the historians is the evidence presented by the statistics in which are crystallized the experience of entire nations. A calamitous smallpox epidemic raged in Germany during 1870–71. carrying off 143,000 victims in a population of 50,000,000, and in 1874 a law was enacted making vaccination obligatory in the first year of life and revaccination also obligatory at the tenth year.

In consequence of this law smallpox has been so successfully stamped out in Germany that the annual loss of life from this disease is only 116!

.Similar figures are afforded by every civilized country, and the lesson they teach is reinforced by the disastrous experience of many careless communities which have temporarily neglected to perform systematic vaccination among the people. The city of Montreal can bear sorrowful witness, from its epidemic in 1885, and the English city of Gloucester, from its outbreak of smallpox in 1896, to the appalling evil which is likely to follow concessions made to antivaccination sentiment.

The principal stock in trade of those who oppose vaccination is borrowed from the ancient and discarded method of "arm to arm" inoculation, syphilis and possibly other diseases being thus communicated from child to child. In the vehement objections to animal vaccine the tubercular germ has been the great bugaboo. But the methods of selecting cattle by Messrs. Parke, Davis & Co., of Detroit, Mich., and their use of glycerin to kill any possible germs in the vaccine exclude that danger perfectly.

But to these unfounded and childish grounds of opposition must be added others of mo e weight and truth. Not without reason have the antivaccinationists protested against the ulcerations, inflammations, abscesses, and sloughings with which vaccinators have been only too familiar in the past, thanks to the general use of germ-infected ' points." The cry of reprobation against these things is not to be silenced by calling people cranks when our best authorities and warmest advocates of vaccination tells us that the old-fashioned "points" fairly *swarm* with disease germs.

When Messrs. Parke, Davis & Co. decided to place vaccine on the market under their label, they felt that *at any cost* their product must be *the best product obtainable*, otherwise they had better keep out of the vaccine business. And now we purpose to sketch very briefly and rapidly the means they use to preserve their vaccine from infection—measures of asepsis and antisepsis which could hardly be made more minute and painstaking in a modern hospital where patients are prepared for dangerous operations.

They use only the healthy heifer about eighteen months old. The animal is first carefully examined by their Veterinarian, Dr. E. A. A. Grange (formerly Michigan State Veterinarian), for any evidence of disease, external or internal. A ringworm on

a heifer is enough to condemn it. *The Tuberculin test is applied in every case*, and any heifer which exhibits a suspicious rise of temperature is rejected.

FIG 1.—"Ready to Invert."—Aseptic Instrument and Dressing Case on the Right.

FIG. 2 —One Row of Inoculated Heifers in Propagating Room.

FIG 3.—Collecting the Vaccine.

When the animal is finally pronounced to be in perfect health, it is scrubbed from head to foot and taken into the Operating Room—a large, high chamber, with cement floor and varnished walls susceptible of ready cleansing and disinfection. Here with the aid of convenient apparatus, (see Fig 1), the heifer is placed on its back; the abdominal surface is thoroughly lathered washed, and *shaved*, and is then scrubbed once more with sterilized water; it is then washed thoroughly with a disinfectant solution; and after a final washing with sterilized water, the abdomen is ready for scarification.

This is performed quickly with sterilized instruments The "seed" vaccine is applied, rubbed in thoroughly, and permitted to dry. The "field" of operation is then covered with an *aseptic and impervious* cement which effectually excludes germs Over the cement is placed a layer of absorbent cotton and over the cotton a protective bandage.

(Other manufacturers of vaccine merely cleanse the abdominal surface So far as we are aware, they do not use a disinfectant, nor do they cover the "field" with anything, simply allowing nature to form a scab)

The heifers are now ready for the *propagating room*.

FIG. 4.—Grinding Vaccine with Glycerin—Emulsifying Apparatus to the Left

Fig. 2. shows one row of iron stalls. Here the inoculated animals are kept for about five days. Men are on hand constantly to collect feces, etc., all excreta being removed from the room immediately.

After about five days the heifer returns to the Operating Room. The hoofs are carefully cleaned, and the various cleansing operations described above as preliminaries to inoculation are now *repeated.*

The dressings are removed; the whole field of operation is cleansed with sterilized water and disinfectant solution; and the external scab is removed *and destroyed.*

The pulp of the vaccine vesicles with exuding serum is now carefully collected with sterilized spoon curettes and placed in sterilized containers filled with glycerin.

The vaccine is now brought to the Biological Laboratory, and is run through sterilized grinders until a *homogeneous mixture* is obtained. The requisite amount of diluent is added, and the mixture is shaken for several hours in a specially devised shaking apparatus in order to make a perfect emulsion.

The vaccine is now examined *bacteriologically and physiologically.* Every single parcel of this vaccine is tested on heifers before they permit it to go out on the market under their label And in the great majority of cases their vaccine is tested for activity on children as well.

If the test requirements are fulfilled, it is filled by skilled operatives into sterilized tubes, in an Aseptic Room especially designed for the purpose. Each tube is examined to satisfy thoroughly that both ends are absolutely closed.

The sealed tubes are at once placed in a refrigerator and kept there until needed for orders. They aim to send out only strictly fresh vaccine, and their stock is changed every week. The proper storage of vaccine by their patrons is of the utmost importance.

Vaccine is a most delicate and perishable product. *Keep it in a cool dark place* (best of all, in a refrigerator), and by all means avoid exposing it for any length of time to a temperature above 70° F. During warm summer weather vaccine deteriorates very fast.

The "seed" vaccine. This is of course, the corner-stone of their process: and they insure its activity by stringently careful preservation and by frequent tests.

Pray, remember that the so-called vesicle is the *only reliable indication* that the vaccine has "taken" *There is absolutely no other proof for or against the vaccine.* A hole in a man's arm half an inch deep—a scar two inches long—proves nothing (except that infection more or less serious has occurred), and neither one affords any guarantee of protection against smallpox. On the other hand, Jenner himself declared that a full measure of such protection is imparted by a single vesicle. The latter varies in size, but is usually *umbilicated* or depressed in the center. At one stage in its growth the vesicle is filled with pearly-gray matter. Often it is small and escapes observation. *Pure vaccine ought to produce only a mild*

reaction. Violent symptoms, local or constitutional, point to infection, either from the vaccine itself or through careless exposure of the wounded arm *after* vacccination.

Messrs. Parke, Davis & Co's fresh and reliable glycerinated virus or antiseptic vaccine lymph is kept regularly by ***Max Bloomstein, Druggist and Pharmacist, Cor. Church and College Streets, Nashville, Tenn.***, as well as Parke, Davis & Co.'s other excellent preparations. Orders by mail will be promptly filled.

ST. THOMAS' INFIRMARY.

The Sisters of Charity of St. Vincent de Paul nearly two years ago purchased for the sum of $50,000 the handsome and palatial residence of Judge J. M. Dickinson, which was originally built by the late O. B. Hayes, both of the pioneer stock of Tennessee. It stands rather near the junction of the eastern with the middle third of a beautiful plot of ground, 8 acres in extent, occupying an entire square, facing Church street on the north, ruuning back to Hayes street, and extending from Boyd Avenue on the east to Vanderbilt Avenue on the west. It is just opposite the magnificent domain of Mr. Samuel Murphy, facing south on Church street, whose handsome residence and large holding of real estate, almost park-like in extent and appearance, will long preclude the possibility of unpleasant neighbors in front. On the other three sides are some of the prettiest residences of Nashville's most agreeable residence quarter, West End, with Vanderbilt University and its grand buildings in full view only between two and three blocks away. The reservoir to the south, the new Union Depot to the southeast, and Tennessee's imposing Capitol building on its beautiful eminence a little to the north of east, about one mile away, and the many beautiful residences extending their handsome proportions in the view from any direction, are peculiarly attractive. The Exposition grounds, with the Parthenon, Auditorium, Administration Building, History Building and Terminal Station still standing, are but a short distance west of this most excellent and well-equipped Infirmary; and said grounds we hope at no distant day will become the property of the city and be converted into a public park.

The Infirmary, as it now stands, occupies the top of a gentle knoll, its summit being more elevated than Capitol Hill, the ground falling away in every direction; the acclivity from Church street and Boyd Avenue, the entrances at present, being but slight, but sufficient fall in all directions for thorough and perfect drainage.

The building was erected some years ago, and is substantial, massive and handsome in every respect, its highly-carved, solid, black walnut doors, some of them four inches in thickness. its porches, porticos and vestibules, are fitted up in the highest style of the builder's art; and the large, commodious and handsome rooms and halls of the interior, with

perfect ventilation, abundance of light, easy flights of stairway both front and rear, make it a most admirable building for the purposes to which it has been consecrated.

While the Infirmary at present cannot compare in size with many other like institutions in other localities, yet for perfection of detail, convenience—and, in fact, everything that should go to make it homelike, restful, and the place of all others for the sick and disabled body to recover tone, vigor and health, it surpasses any I have yet seen.

The nursing is done by a corps of the noble and self-sacrificing Sisters of Charity of St. Vincent de Paul, the Order having its headquarters at Emmettsburg, Md., and who have at this time no less than 114 institutions in their charge, consisting of Hospitals, Infirmaries, Orphanages, etc., in different parts of the United States.

Of the Sisters in charge at St. Thomas' we can say from personal experience that they are untiring in their zeal, and earnestness; gentle, tender, and kind, and ceaseless in their efforts to give comfort to those in their charge; yet with this they are firm and thorough in carrying out the directions of the medical attendant or adviser of any patient brought them—as were the edicts of the Medes and Persians, just so are the directions and instructions of the physician carried out in every detail and particular by these competent, careful and well-skilled nurses I have have seen many trained nurses, some excellent, others good, bad and indifferent; but the perfection of sick nursing I have witnessed at the hands of these devoted women.

Sister Agnes now has charge as Sister Superior, succeeding Sister Philomena about eight months ago, and under her supervision and direction harmony, order, quiet and everything pertaining to relief of physical suffering, not only seeming to be, but in reality are, brought up to the highest degree of perfection; and good Sister Rose, with her delicate but firm and skilled touch, the night Sister, who makes her regular rounds from ward to ward from 6 p.m. to 6 a.m.; the good and well-trained Sister in charge of the Dispensary, and their associates, are simply perfection in the discharge of their exacting dutias.

While there are other private infirmaries in Nashville, this is open to all physicians, any of whom may send patients here that are admissible (contagious diseases, as a matter of course, being excluded), visit them at they would at their homes, boarding-houses or hotels; or if from a distance, the patient can be sent here and placed in charge of any of the physicians of the city, with the satisfaction of knowing that his directions for treatment will be carried out to the letter.

Numbers of my friends in near-by towns and in rural districts, from time to time have cases that they, in the exigencies of general practice, with long rides, frequent night calls and unexpected demands upon their time, cannot give the attention that the conditions of each particular case demands. To such we would say, select any physician, surgeon or specialist you please in the city of Nashville, and send your patient to St. Thomas' Infirmary, and you can depend on their receiving every care and attention needed.

The building, as stated, while commodious as a private residence, is small for the grand purposes for which it is now used. There are some half-dozen private rooms with rates at from $15 to $20 per week, and the male wards containing eight beds, the female wards twelve, at $10 per week. These rates include board, medicines, and general nursing. The handsome private rooms are equal in comfort, convenience and splendid equipment to any of the best rooms in the best hotels, with conveniences for the sick and suffering far exceeding; and the diet or food that may be ordered by the medical attendant is of the very first quality our market affords, prepared with skill, taste and dainty neatness. The floors, even of the wards, are, as are those of every room, hall, vestibule and porch, marvels of cleanliness. There is a large range for the preparation of the daily food, that is a jewel in brightness, with an additional gas stove for the preparation of hurried or hasty orders; and the thoroughbred Jerseys grazing on the rich blue grass in the large lot west of the building furnish pure rich milk, uncontaminated by the dairyman's cans and undiluted from his near-by branch or pond. The bedclothing, household linen, napkins, etc., in their cleanliness and freshness rival the snowy white peculiar Norman caps worn by the Sisters themselves.

An addition has been added since the conversion of this grand private residence into an Infirmary, in the way of an operating room on the ground floor on the west side of the building, which is a gem indeed, with its latest improved operating chair and other paraphernalia necessary, marble wainscot, tiled floor, and an abundance of light even on a gloomy and cloudy November afternoon, and would make glad the heart and inspire the soul of a Kelly, Deaver, or the most fastidious in aseptic and antiseptic details. A complete and well-arranged Dispensary adjoins the operating room in charge of one of the Sisters, trained and skilled in her duties.

In concluding this article, which has been written simply to inform my readers of the advantages Nashville possesses in this special infirmary, I will state, that plans are now being made by Mr. Carpenter, of New York, an architect experienced in Hospital and Infirmary construction, having recently designed one at Norfolk, Va., one at Birmingham, Ala., and several at New York and other places, for a new building or an addition that will extend from the rear of the present Infirmary to Hayes Street. The present building to be occupied thereafter for offices of the new Infirmary and for the Sisters. This building will be commenced early in 1900, just as soon as the spring season sufficiently opens. It will be four stories high, with ample wards for males and females, with forty private rooms, with all the advantages and improvements that have been proven practical and necessary by past experience. The cost of this new building or addition is fixed at $125,000, and at a subsequent period I hope to give more of its details in the pages of this journal. The site is a most excellent one, with its elevation, and picturesque environments, extensive grounds and salubrious surroundings, urban conveniences with a pure rural atmosphere, and with the kind, careful and skilled Sisters of

Charity of St. Vincent de Paul in charge, all that will be needed will be patients—and they will surely come.

Any communication addressed to the Sisters in charge of St. Thomas' Infirmary, Nashville, Tenn., will receive prompt and courteous attention.

AN INJUSTICE.—Probably no drug has been more unjustly maligned than Erythroxylon Coca. Yet no drug has really rendered more aid to therapeutics, as demonstrated in the many writings by authors, botanists and medical observers during the past century. At the time of the Incas (twelfth century), long before the discovery of Peru by Pizarro (1524), Coca was in extensive use. It rendered the greatest of service as a restorative, a fortifier, a sustainer. It was entirely dependent upon to insure resistance to disease, fatigue, hardships or toil. For centuries Coca proved its usefulness and merit; it so has continued, notwithstanding the systematic series of attacks instigated in the sensational press, about three years ago, by malicious persons who had special interests in endeavoring to bring Coca into disrepute, if possible to dissuade its use.

The fast-growing popularity of Coca through the untiring efforts of Mariani, of Paris, who was the first to introduce it in Europe and in America in a uniformly reliable and agreeable form, and his labor and serious work in this direction were appreciated by the medical profession (Mariani's latest Monograph on Coca, English translation, illustrated, cloth bound, 76 pages, sent, post-paid, to any physician, on application to Mariani, 52 West 15th Street New York). His preparation has become a most formidable rival to the many so-called tonics, restoratives and stimulants.

When it was clearly demonstrated that Coca was vastly superior and was being adopted universally by the physician, each manufacturer hastened to add Coca in some form or another to their various mixtures. While this was an admission of the value of Coca, it really injured its reputation, owing to the defective preparations produced. Unsatisfactory, even harmful results induced the profession to reject the many valueless, at times dangerous, concoctions. An active campaign was opened rgainst Coca in the medical and daily press. Sensational articles without any basis of fact were instigated, with the dual purpose of inciting the opinion of the physician and the public against the drug, and thus prevent its use.

The manufacturers had no knowledge of the requisite treatment and preparation of this delicate, probably most volatile of plants—in fact, were unable to procure reliable leaves, there being even a vastly greater variation than in tea. Due to aforesaid causes, the manufacturers were either compelled to or voluntarily stopped the use of Coca, thus proving again the old saying, "the survival of the fittest," as, notwithstanding the combined efforts of the many competitors and antagonists, the well-known preparation of Coca by Mariani, of Paris, France, which bears his name, is the only one which has resisted all attacks directed against Coca.

Introduced to the profession more than thirty-five years ago, it stands without an equal, and continues to be endorsed and upheld by all who subject it to thorough test. It certainly merits the attention of practitioners who for any of the aforesaid reasons may have not considered Coca in its true light, or who may have become prejudiced.

Mariani's Coca can be conscientiously recommended; its adoption into practice as an adjuvant into treatment of the innumerable cases where an nbsolutely reliable tonic, effective but mild stimulant is indicated, will render more assistance than any drug or medium known to therapeutics.

Its field of usefulness will gain for Coca in the form of a reliable preparation, as great, or if possible, even a greater reputation in the future than it enjoyed at the time of the Incas.

A New Portable Electric Outfit.—Electricity as a therapeutic agent, while quite popular with a few specialists and wealthy practitioners, is employed by the majority of general practitioners with no scientific precision, because of lack of suitable apparatus. The results are poor, for to obtain good results good apparatus is necessary. It is, therefore, for this reason that electricity is decried by many as a valueless agent, while in reality it is a very valuable means of curing a large number of nervous and muscular affections. The idea prevails among many practitioners that electricity can be administered scientifically only by means of large, stationary and expensive "machines." The price and impossibility of moving the batteries from the office to the bedside of the patient have proven objectionable features, preventing the general introduction and practice of electro-therapeutics. It is perhaps of interest to know that the most renowed specialists in Europe, for example, Dr. Erb, who has become famous through his lectures and writings on electro-therapy, use, in their private practice, small portable batteries. Of course, the term "small portable" is not to be confounded with the so-called family batteries, for self-treatment, which, as a rule, are not worth the material used on them. The erroneous idea that the large liquid cells yield more electro-motive force and amperage than small dry cells, has prejudiced the profession against anything but stationery cells. We know to-day that the size of the cell has nothing to do with its electro-motive force and that a small dry cell about as large as a vaginal speculum will do more for a longer period of time than, for example, a Laclede sal-ammoniac cell. The cost of renewing a dry cell is not larger than the refilling and keeping in good order of large acid cells.

Knowing these facts, and to overcome the objections mentioned, with the co-operation of the manager of the Electro-Medical Mfg. Co., 350 Dearborn St., Chicago, Ill., I have devised a combination battery, which, while cheap, admits of the scientific administration of galvanism, faradism, the practice of electrolysis, and the illumination of small lamps for diag-

nostic purpose. The following illustration gives a fair idea of its construction.

The battery has twenty-four cells, connected to the galvanic circle, yielding 33 volts. The faradic current produced in the coil is even and smooth, but can also be regulated with Lindstrom's rheotome to from 100 to about 4,000 interruptions per minute. There is a selecting switch for primary and secondary currents. By means of a switch, connection is made with a strongly built milliamper meter for the measuring of the galvanic current. Four extra large cells are connected to a German silver wire rheostat for the purpose of running a small incandescent lamp (25 hours) for the illumination of cavities—throat, vagina, rectum, etc.

The battery can be used for electrolytic work, such as the removal of superfluous hair, warts, moles, etc., and has for that purpose an electric needle and holder, epilation forceps and magnifying glass. To the battery are added several sponge and metal electrodes, one roller electrode, one metallic brush and one interrupting handle, all which are fastened between strong clamps to the inner sides of the cover.—*Gustavus M. Bleck, A.B., M.D., in Journal of American Medical Association.*

Some Minor Cruelties of War.—Our steady, stable and substantial contemporary, *The Southern Lumberman*, of this city, one of the most readable and practical "trade publications" of the day, in and among its numerous statements of dry facts regarding dry lumber, dry kilns, *et id omne genus*, sometimes indulges in a bit of satirical humor, as for example under the caption above, its able and competent editor, who "has been thar" all along the line in '61–'65, from "eend to eend," gets off the following in the issue of November 1, 1899:

"Prior to the opening of active hostilities in the "Yankee-Don" war, now happily ended, except with a few soreheads and impracticable fanatics in the United States and the head men of a dominant tribe of semibarbarians in one of the largest Philippine Islands, whose only idea of government is tribal superiority practiced by the nomads B.C. 1500. A distinguished American warrior defined war as being a condition in this world similar to that determined by the priests, prophets, and theologians against the unrighteous in the world to come. It is a sad picture, but the world admits that the aforesaid warrior spoke from experience, and knows whereof he speaks, because he was a prominent figure in the war between the States, when men with strong convictions of the righteousness of their cause on both sides fought with guns to a finish. But in the "Yankee-Don" war and in the war now waging between the British and their Dutch cousins in South Africa a daily cruelty is being inflicted upon innocent noncombatants who can read only the English language. The Spanish names of men and places, their spelling and pronunciation, that the readers of the daily papers had to encounter, were bad enough, but were mild as compared to outlandish names of places

mentioned in the dispatches from the scene of action in the English-Boer war. If the Spanish names gave an English reader spasms, the Dutch-Boer add convulsions: and, then, the war maps printed in the daily papers will certainly increase the suicidal tendency of those who are mentally weak enough to try to gain any information from them. All we have seen of these "war maps" appear to have been drawn by guess with a piece of charcoal on a cull board and engraved with a left-handed lathing hatchet. Verily, war has many terrors besides those on the bloody field and in the hospitals."

WHIPPING THE DEVIL AROUND THE STUMP.—"*Amicus Plato, amicus Socrates, sed magis amica veritas.*"—In a city not many miles distant from the confines of the Volunteer State there is a medical College with a very active and aggressive faculty secretary. He is courteous, cultured, refined, and in every way a true Christian gentleman, and withal a very highly esteemed member of one of the city's most popular and populous churches. He sends out many letters, both during and between terms, in order to secure matriculates to the school he so ably represents, and leaves no stone unturned, lets no dust lie under his feet, but may put a little into the eyes of some one occasionally, and whenever or wherever he learns of a young man who has the slightest inclination to turn his attention to medical lore, immediately writes him a personal letter or has it done by his stenographer.

Recently with his mass of mail, letters, periodicals, pamphlets and papers. he received a catalogue containing the names and addresses of the students who attended the preceding course of lectures at a medical school in a not very distant State. He determined to address each one of the undergraduates a personal letter in the interest of his school, but did not like to state that he had obtained names and addresses by means of a college catalogue. Therefore, as he desired to make the letter as personal and special as possible, and strictly in accordance with truth, be handed the catalogue to his lady stenographer with the remark: "Take this, will you, if you please."

The catalogue was at once received from his hands. After moment's pause he said: "Will you please hand me that catalogue?"

His request being complied with, he very politely said "Thank you."

Then commencing with the first name in the catalogue he began his dictation to his stenographer:

"*Mr. John Roe:*

"MY DEAR SIR:—Your name having just been handed me with the information that you were desirous of continuing your studies in order to qualify yourself for the medical profession, I beg leave," etc., etc.

BLOODLESS OPERATIONS upon the nasal septum are now an established fact, due to the discovery of the astringent and hemostatic properties of

of Suprarenal Capsules. The rhinologist may conscientiously assure his patient that operations may be performed with little or no demonstration of blood by employing the Aqueous Extract of the Suprarenals.

An extract made by the following formula is very efficacious and has excellent keeping qualities:

Adrenals (Armour's Desiccated).....1 dr.
Acid Boric ....16 grs.
Cinnamon Water..... ...4 drs.
Camphor Water (hot).....1 oz.
Distilled Water (hot). q. s. ad .....2 ozs.

Macerate for four hours, then filter.

The surgeon will find this extract a great aid in all minor operations. To insure results a pure Suprarenal substance should be used.

INDIGESTION.—As long as people will be unwise in matters of diet, just so long will physicians be called upon to treat all forms of indigestion. It, therefore, is well to consider a remedy which is suitably adapted to this condition. We desire to call attention to Ingluvin for treatment of all forms of dyspepsia. It is a bland preparation of the ventriculus callosus gallinaceous. It has a property of soothing the irritated gastric mucous membranes and re-establishing a normal secretion of the digestive fluids. It has time and again proven itself superior to pepsin. Its prescription is attended with more certain results than pepsin. Whenever pepsin is indicated try Ingluvin. It will give you more satisfaction. Messrs. Wm. R. Warner & Co., Philadelphia, the manufacturers, will send you sample upon request.

THE PHYSICIANS' POCKET MANUAL, issued by Messrs. Parke, Davis & Co., is a compact, handy and valuable little book, containing a variety and wealth of information about pharmaceutical and biological products. Fifty-eight pages are devoted to the medical properties of various drugs in daily use, and a dose list. The manual also contains tables of metric equivalents, a table for making solutions, a very complete index, and an exhaustive list of botanical synonyms, and many notes containing much and valuable information for the busy practitioner or student of medicine. If any of our readers will make request by letter or postal card, giving full post-office add ress, this excellent little brochure will be sent to them without charge.

SANDER & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics at the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo., Dallas, Tex., and New York, sole agents.

TONGALINE IN COMBINATION.—Dr. William F. Kier, of St. Louis, one of the most active and successful general practitioners in the whole country, has used the following prescription with most satisfactory results in the treatment of catarral influenza so prevalent during the fall, winter and spring months:

℞ Tongaline (Mellier).....3 ozs.
Papine.....½ oz.
Tinct. capsicum.....½ dr.
Syrup ginger.....½ oz.

WARNER'S POCKET MEDICAL DICTIONARY: A handsomely bound practical Medical Dictionary of to-day; 10,400 definitions; 413 pages. Complete tables of Arteries, Bacilli, Bacteria, Muscles, Nerves, Spirilli, Streptococci, etc.; a complete Dose Table, giving doses in apothecaries, weights and their metric equivalents. Bound in flexible leather, round corners: easily carried in the pocket, very convenient to the busy practitioner for quick reference, and will be sent postpaid to any of our readers on receipt of price, which is only 75 cents. Address W. R. Warner & Co., 1228 Market street, Philadelphia, 52 Maiden Lane, New York, or 197 Randolph street, Chicago.

SANDERS & SONS' Eucalyptol Extract (Eucalyptol).—Apply to Dr. Sander, Belle Plaine, Iowa, for gratis supplied sample of Eucalyptol and reports of cures effected at the clinics at the Universities of Bonn and Griefswald. Meyer Bros.' Drug Co., St. Louis and Kansas City, Mo. Dallas, Tex., and New York, sole agents.

Reviews and Book Notices.

THE MEDICAL NEWS VISITING LIST FOR 1900. Weekly (dated for 30 patients); Monthly (undated for 120 patients per month); Perpetual (undated, for 60 patients, weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient Perpetual consists of 256 pages of blanks. Each style in one wallet, shaped book, with pocket, pencil and rubber. Seal Grain Leather, $1.25. Thumb-letter Index, 25 cents extra. LEA BROTHERS & Co., Philadelphia and New York.

Of this we can say it is *one of the best and most* handsome of its class. Its blank pages are arranged to classify and record memoranda and engagements of every description occurring in

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A LABORATORY MANUAL OF PHYSIOLOGICAL CHEMISTRY. By FLEMMT W. ROCKWOOD, B. S., M.D., Professor of Chemistry and Toxicology in the University of Iowa. Illustrated with one colored plate and three plates of microscopic preparations. 5¾x7¾ inches. Pages viii-204. Extra cloth, $1.00, net. THE F. A. DAVIS CO., Publishers, 1914-16 Cherry street, Philadelphia.

This is a very excellent little work, and students of medicine will find it exceedingly beneficial in getting over that "pons asinorum," and "bete noir" to so many. As far as possible, the work has been so arranged as to require but a small stock of apparatus and re-agents and such as are readily attainable. It will prove so interesting that a branch of medical science that proves tiresome to so many during their student days will become both agreeable and pleasant.

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This compend, now in its sixth edition is the most complete of its class. It is not intended to in any way replace the text-books on the practice of medicine, but has been written as an aid to the medical student, and will prove of value to the average general practitioner who wants a guide, a compact yet comprehensive reference to many of the subjects contained within it, and not having the time to go over the more voluminous authorities. The addition of the section on Mental Diseases—the able author having had wide experience, is of especial value, and like that on Skin Diseases we know will be appreciated.

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For more than a quarter of a century I have been using this most excellent Visiting List—in days of yore so well and popularly known as Lindsay and Blakiston's. Convenient, compact, and comprising the plainest and most systematic method of keeping physicians' accounts. It contains the usual dose list, table for calculating date of parturition, pages for nurses' names and addresses, obstetric engagements, vaccination, and all that has been found of use in such a companion for the working practitioner of medicine and surgery. It can redily be procured from any leading bookseller or druggist in the United States. It is so well and favorably known that it is only necessary to let the many users of it know that it is now ready. Verily, "a good wine needs no bush."

PRACTICE OF MEDICINE (Lea's Pocket Text-Book Series); A Manual for Students and Practitioners. By GEO. E. MALSBARY, M.D., Assistant to the Chair of Practice, Medical College of Ohio; Assistant to the Lecturership of Clinical Medicine, Good Samaritan Hospital, Cincinnati. Edited by BERN B. GALLAUDET, M.D., Demonstrator of Anatomy and Instructor in Surgery, College of Physicians and Surgeons, New York; Visiting Surgeon to Bellevue Hospital, New York. 8vo, cloth, pp. 404. Illustrated with 45 Engravings. Price, $1.50. Philadelphia and New York: LEA BROS. & Co., 1899.

A personal acquaintance with Dr. Malsbary for some years past was quite sufficient to know that if he entered into the field of authorship he would prove a success, and the condensed manual he has brought out is practical, clear and instructive. As a matter of course it is a compilation; but from the most reliable and trustworthy sources.

In his brief and modest preface he very correctly says:

"Medical progress is so rapid in our day that manuals have special value, in that they may be published in the shortest time possible, and thus place before the reader the most recent advances in medicine. Moreover, a brief epitome presents the subject to the busy practitioner and student in a form more readily accessible than is possible in a more lengthy treatise."

ANNUAL AND ANALYTICAL CYCLOPEDIA OF PRACTICAL MEDICINE. By CHARLES E. DE M. SAJOUS, M.D., and one hundred associate editors, assisted by corresponding editors, collaborators and correspondents. 8 vo. half-leather, pp. 622, illustrated with chromo-lithographs, engravings and maps. Vol. IV. (Dirrhœal Diseases of Infants to Mercury). The F. A. DAVIS Co., Publishers, Philadelphia, New York and Chicago. 1899.

The editor in his preface to the fourth volume of this grand annual pays fitting tribute to the late Prof. George H. Rohe, of Baltimore, who had been connected with the annual since 1891. one of his best contributions to the profession he honored and adorned, a review of the subject of Insanity appearing in this volume; a subject which from practical experience and deep culture he was able to handle most satisfactorily, and his article here alone, should cause the fourth volume to be prized far more highly than its price in currency. Besides this article we have a most excellent paper (the first in the volume) by Prof. Blackader, of Montreal, on the Diarrhœal Diseases of Infancy. In-

fluenza by no less an authority than Prof. Nathan S. Davis, of Chicago, occupies near twenty pages; and the elaborate paper on Malarial Fevers, by Prof. John C. Wilson and Dr. Thomas G. Ashton; Locomotor Ataxia, by Dr. W. B. Pritchard, of New York; Intubation by Prof. F. E. Waxham, of Chicago; Diseases of the Liver by Prof. Alex. McPhedran, of Toronto; Meningitis, by Dr. Charles M. Hay, of Philadelphia, and the article on Leprosy, by the editor, all go to show that we have here one of the most valuable issues of the series of this most excellent annual. The binding is strong and durable, yet neat and tasty; the paper, typography and press work of the first-class; and the illustrations elaborate, excellent and elucidative.

PROGRESSIVE MEDICINE: A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M.D., Professor of Materia Medica and Therapeutics in Jefferson Medical College; Physician to Jefferson Medcal College Hospital; Laureate of the Royal Academy of Medicine of Belgium, of the Medical Society of London. Member of the Association of American Physicians, etc. Vol. III, September, 1899. 8vo, cloth, pp. 440. LEA BROS. & Co., Philadelphia and New York, 1899.

The third volume of this most excellent record of the advances, discoveries and improvements in medicine and surgery is quite in keeping with its predecessors. The contributors to this volume consist of Wm. Ewart, M.D., F.R.C.P.; Richard C. Norris, M.D.; Wm. G. Spiller, M.D.; and Henry W. Stellwagon, M.D. The first-named collaborator devotes his attention to a careful gleaning of the field for everything of practical value connected with Diseases of the Thorax and its Viscera, including the Heart, Lungs and Blood Vessels; the second, Obstetrics; the third, Diseases of the Nervous System; and the fourth, Diseases of the Skin. A copious index completes the very handsome work, which will be a valuable and attractive addition to the working library of any progressive practitoner.

The compilation of Dr. Stellwagon is enhanced by some very attractive and illustrative plates.

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